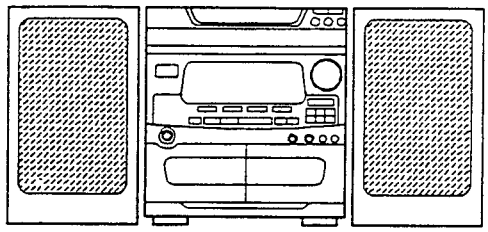
aiwa

aiwa SERVICE

CX-NV70

SERVICE MANUAL



COMPACT DISC STEREO
CASSETTE RECEIVER

- BASIC TAPE MECHANISM : 2ZM-3MK2 PR1
- BASIC CD MECHANISM : 4ZG-1 TDFR
- TYPE: EE, K, EZ

CD-CASSEIVER	REMOTE CONTROLLER	SPEAKER
CX-NV70	RC-T501	SX-FNV70L

S/M Code No. 09-956-094-9FP

SPECIFICATIONS

<FM Tuner section>

Tuning range	87.5 MHz to 108 MHz
Usable sensitivity(IHF)	17.2 dBf
Antenna terminals	75 ohms (unbalanced)

<MW Tuner section>

Tuning range	531 kHz to 1602 kHz (9 kHz step) 530 kHz to 1710 kHz (10 kHz step)
Usable sensitivity	350 μV/m
Antenna	Loop antenna

<LW Tuner section>

Tuning range	144 kHz to 290 kHz
Usable sensitivity	1400 μV/m
Antenna	Loop antenna

<Amplifier section>

Power output	Rated 70 W + 70 W (6 ohms, T.H.D. 1 %, 1 kHz / DIN 45500) Reference: 85 W + 85 W (6 ohms, T.H.D. 10 %, 1 kHz / DIN 45324) DIN MUSIC POWER 100 W + 100 W
Total Harmonic distortion	0.1 % (30 W, 1 kHz, 6 ohms, DIN-AUDIO)
Inputs	VIDEO/AUX: 150 mV adjustable MIC 1, MIC 2: 1 mV (10 kohms)
Outputs	LINE OUT: 200 mV SUPER WOOFER: 2.45 V SPEAKERS: accepts speakers of 6 ohms or more SURROUND SPEAKERS: accepts speakers of 16 ohms or more PHONES (stereo jack): accepts headphones of 32 ohms or more

<Cassette deck section>

Track format	4 tracks, 2 channels stereo
Frequency response	CrO_2 tape: 50 Hz – 16000 Hz Normal tape: 50 Hz –15000 Hz
Signal-to-noise ratio	60 dB (Dolby B NR ON, CrO_2 tape peak level)
Recording system	AC bias
Heads	Deck 1: Playback head x 1 Deck 2: Recording/playback/ erase head x 1

<Compact disc player section>

Laser	Semiconductor laser (λ =780 nm)
D-A converter	1 bit dual
Signal-to-noise ratio	85 dB (1 kHz, 0 dB)
Harmonic distortion	0.03% (1 kHz, 0 dB)
Wow and flutter	Unmeasurable

<Speaker system SX-FNV70L>

Cabinet type	3 way, bass reflex with surround speaker (Magnetism sealed type)
Speaker	Woofer: 140 mm ($5^5/_8$ in.) cone type Tweeter: 80 mm ($3^1/_4$ in.) cone type Super tweeter: 50 mm (2 in.) ceramic type Surround speaker: 80 mm ($3^1/_4$ in.) cone type
Impedance	Front speaker: 6 ohms Surround speaker: 16 ohms
Output sound pressure level	87 dB/W/m
Dimensions (W x H x D)	206 x 302 x 265 mm ($8^1/_8$ x 12 x $10^1/_2$ in.)
Weight	4.0 kg (8 lbs 13 oz.)

<General>

Power requirements	230 V AC, 50 Hz
Power consumption	400 W
Dimensions of main unit (W x H x D)	260 x 307.8 x 337 mm ($10^1/_4$ x $12^1/_8$ x $13^3/_8$ in.)
Weight of main unit	7.8 kg (17 lbs. 3 oz.)

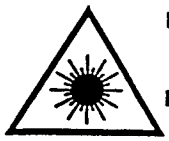
- Design and specifications are subject to change without notice.
- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
  "DOLBY" and the double-D symbol ▯▯ are trademarks of Dolby Laboratories Licensing Corporation.
- The word "BBE" and the "BBE symbol" are trademarks of BBE Sound, Inc.
  Under license from BBE Sound, Inc.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saataa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herin may result in hazardous radiation exposure.

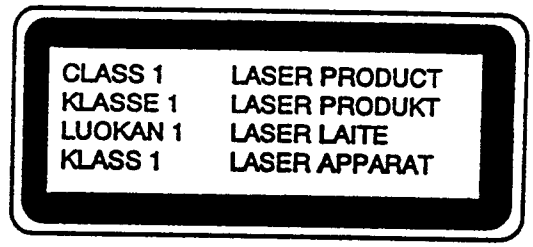
ATTENTION

L'utillisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL

Usynlig laserståling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

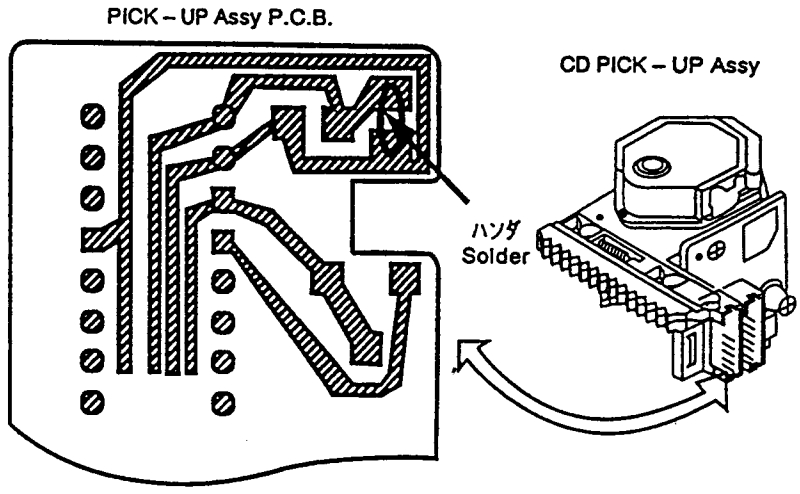


Precaution to replace Optical block

(KSS-210A)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use the clothes do not touch the diode.

1) After the connection, remove solder shown in figure below.



ELECTRICAL MAIN PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-020-454-010		IC,DN6851
	85-NF5-634-010		IC,LC866432V-5751
	87-070-083-010		IC,GP1U281X
	87-001-904-010		IC,STK4192-MK2
	87-070-121-010		IC,HA12185NT
	87-070-232-010		IC,BA3834S
	87-017-375-080		IC,TC4094BF
	87-001-874-010		IC,HA12134A
	87-017-673-010		IC,BA3837
	87-017-449-010		IC,XR-1071CP
	87-017-374-010		IC,TC4094BP
	87-017-022-080		IC,NJM2068M-D(T1)
	87-027-666-010		IC,TC4052BP
	87-070-184-040		IC,M65846FP-600D
	87-017-787-010		IC,M62412P
	87-070-127-010		IC,LC72131
	87-002-272-080		IC,TC4052BF
	87-017-714-010		IC,LA1836
TRANSISTOR			
	87-026-463-080		TR,2SA933S
	89-213-702-010		TR,2SB1370E
	89-109-352-080		TR,2SA935Q
	87-026-610-080		TR,KTC3198GR
	89-327-125-080		C-TR,2SC2712GR
	89-332-665-080		TR,2SC3266GR
	89-337-221-380		C-TR,2SC3722K
	89-111-625-080		C-TR,2SA1162GR
	87-026-210-080		C-TR,DTC144EK
	89-113-187-880		TR,2SA1318TU
	87-026-235-080		C-TR,DTC114EK
	89-333-266-080		C-TR,2SC3326B
	87-026-211-080		C-TR,DTA144EK
	87-026-232-080		C-TR,DTA144WK
	87-026-658-010		FET,2SJ176
	89-510-940-010		FET,2SK1094
	89-322-405-080		TR,2SC2240GR
	87-026-226-080		C-TR,DTA143EK
	89-503-655-680		FET,2SK365GR BL
	89-112-965-080		TR,2SA1296GR
	89-333-317-080		TR,2SC3331T
	89-327-126-080		C-TR,2SC2712BL
	89-109-521-080		TR,2SA952K
	89-406-555-080		TR,2SD655E
	87-026-214-080		TR,DTA114YS
	89-327-143-080		C-TR,2SC2714(O)
	89-505-434-580		C-FET,2SK543(4/5)
DIODE			
	87-002-225-010		DIODE,DBF 40C-K10
	87-017-978-080		DIODE,1N4003
	87-020-027-080		C-DIODE,1SS184
	87-020-125-080		C-DIODE,1SS181
	87-020-465-080		DIODE,1SS133 T-72
	87-017-174-080		ZENER,HZS11A3L
	87-017-146-080		ZENER,HZS30-2
	87-020-691-080		DIODE,1SS132
	87-001-731-080		ZENER,HZS6C2L
	87-017-091-080		ZENER,HZS5C1
	87-020-331-080		C-DIODE,DAN202K
	87-001-290-080		ZENER,HZS6B1L
	87-001-559-080		DIODE1SS131 (T-72)
	87-070-178-090		DIODE,1N5402-BD54
	87-001-408-080		DIODE,GP 15B
	87-017-086-080		ZENER,HZS5A2
	87-020-330-080		C-DIODE,DAP202K
	87-017-148-080		ZENER,HZS6A1L
MAIN C.B			
C101	87-010-453-090		CAP,E 4700-25 SME
C102	87-010-453-090		CAP,E 4700-25 SME
C104	87-010-235-080		CAP,E 470-16 SME
C105	87-010-381-080		CAP,E 330-16 SME
C106	87-015-914-089		CAP,E 47-100
C107	87-010-405-080		CAP,E 10-50 SME
C108	87-010-407-080		CAP,E 33-50 SME
C109	87-010-263-080		CAP,E 100-10 SME
C112	87-010-382-080		CAP,E 22-25 SME
C113	87-010-403-080		CAP,E 3.3-50 SME
C115	87-016-247-080		C-CAP,0.1-50 F
C116	87-012-140-080		C-CAP,S 470P-50 CH
C117	87-012-368-080		C-CAP,S 0.1-50 F
C118	87-012-368-080		C-CAP,S 0.1-50 F
C119	87-012-368-080		C-CAP,S 0.1-50 F
C126	87-016-520-090		CAP,E 3300-65
C127	87-016-520-090		CAP,E 3300-65
C128	87-012-368-080		C-CAP,S 0.1-50 F
C129	87-012-368-080		C-CAP,S 0.1-50 F
C130	87-012-368-080		C-CAP,S 0.1-50 F
C131	87-012-368-080		C-CAP,S 0.1-50 F
C152	87-010-260-080		CAP,E 47-25 SME
C201	87-010-190-080		C-CAP,S 0.01-50 F
C202	87-018-211-080		CAP,TC-U 0.01-50
C203	87-010-190-080		C-CAP,S 0.01-50 F
C204	87-018-211-080		CAP,TC-U 0.01-50
C213	87-010-401-080		CAP,E 1-50 SME
C214	87-010-401-080		CAP,E 1-50 SME
C215	87-010-184-080		C-CAP,S 3300P-50 B
C216	87-010-184-080		C-CAP,S 3300P-50 B
C217	87-010-382-080		CAP,E 22-25 SME
C218	87-010-382-080		CAP,E 22-25 SME
C219	87-010-213-080		C-CAP,S 0.015-50 B
C220	87-010-213-080		C-CAP,S 0.015-50 B
C221	87-010-400-080		CAP,E 0.47-50 SME
C222	87-010-400-080		CAP,E 0.47-50 SME
C223	87-010-260-080		CAP,E 47-25 SME
C224	87-010-260-080		CAP,E 47-25 SME
C225	87-010-260-080		CAP,E 47-25 SME
C226	87-010-260-080		CAP,E 47-25 SME
C227	87-018-209-080		CAP,TC-U 0.1-50 F
C228	87-018-209-080		CAP,TC-U 0.1-50 F
C231	87-010-196-080		C-CAP,S 0.1-25 F
C243	87-010-154-080		C-CAP,S 10P-50 CH
C244	87-015-879-080		C-CAP,10P CH
C245	87-018-208-080		CAP,TC-U 0.047-50 F
C250	87-010-197-080		C-CAP,S 0.01-25 B
C251	87-010-766-080		CAP,E 330-63
C297	87-010-404-080		CAP,E 4.7-50 SME
C298	87-010-404-080		CAP,E 4.7-50 SME
C303	87-012-157-080		C-CAP,S 330P-50 CH
C304	87-012-157-080		C-CAP,S 330P-50 CH
C305	87-012-155-080		C-CAP,S 180P-50 CH
C306	87-012-155-080		C-CAP,S 180P-50 CH
C307	87-010-196-080		C-CAP,S 0.1-25 F
C308	87-010-196-080		C-CAP,S 0.1-25 F
C313	87-010-181-080		C-CAP,S 1800P-50 B
C314	87-010-181-080		C-CAP,S 1800P-50 B
C315	87-010-179-080		C-CAP,S 1200P-50 B
C316	87-010-179-080		C-CAP,S 1200P-50 B
C317	87-012-142-080		C-CAP,S 0.33-16 F
C318	87-012-142-080		C-CAP,S 0.33-16 F
C319	87-012-141-080		C-CAP,S 0.22-16 F
C320	87-012-141-080		C-CAP,S 0.22-16 F
C321	87-010-196-080		C-CAP,S 0.1-25 F

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C322	87-010-196-080		C-CAP,S 0.1-25 F
C324	87-010-260-080		CAP,E 47-25 SME
C325	87-010-370-080		CAP,E 330-6.3 SME
C326	87-010-196-080		C-CAP,S 0.1-25 F
C332	87-010-196-080		C-CAP,S 0.1-25 F
C335	87-010-805-080		C-CAP,S 1-16 F
C336	87-010-805-080		C-CAP,S 1-16 F
C351	87-012-154-080		C-CAP,S 150P-50 CH
C352	87-012-154-080		C-CAP,S 150P-50 CH
C451	87-012-140-080		C-CAP,S 470P-50 CH
C452	87-012-140-080		C-CAP,S 470P-50 CH
C453	87-010-178-080		C-CAP,S 1000P-50 B
C454	87-010-178-080		C-CAP,S 1000P-50 B
C455	87-010-178-080		C-CAP,S 1000P-50 B
C456	87-010-260-080		CAP,E 47-25 SME
C457	87-010-197-080		C-CAP,S 0.01-25 B
C458	87-010-183-080		C-CAP,S 2700P-50 B
C459	87-010-183-080		C-CAP,S 2700P-50 B
C460	87-010-183-080		C-CAP,S 2700P-50 B
C470	87-010-196-080		C-CAP,S 0.1-25 F
C501	87-010-177-080		C-CAP,S 820P-50 SL
C502	87-010-177-080		C-CAP,S 820P-50 SL
C503	87-012-155-080		C-CAP,S 180P-50 CH
C504	87-012-155-080		C-CAP,S 180P-50 CH
C515	87-010-545-080		CAP,E 0.22-50 SME
C516	87-010-545-080		CAP,E 0.22-50 SME
C519	87-010-196-080		C-CAP,S 0.1-25 F
C521	87-010-197-080		C-CAP,S 0.01-25 B
C522	87-010-318-080		C-CAP,S 47P-50 CH
C523	87-010-197-080		C-CAP,S 0.01-25 B
C524	87-010-402-080		CAP,E 2.2-50 SME
C530	87-010-194-080		C-CAP,S 0.047-25 F
C531	87-010-545-080		CAP,E 0.22-50 SME
C532	87-010-382-080		CAP,E 22-25 SME
C533	87-010-404-080		CAP,E 4.7-50 SME
C534	87-010-404-080		CAP,E 4.7-50 SME
C535	87-010-404-080		CAP,E 4.7-50 SME
C536	87-010-404-080		CAP,E 4.7-50 SME
C537	87-018-209-080		CAP,TC-U 0.1-50 F
C538	87-010-384-080		CAP,E 100-25 SME
C539	87-012-142-080		C-CAP,S 0.33-16 F
C540	87-010-196-080		C-CAP,S 0.1-25 F
C541	87-010-196-080		C-CAP,S 0.1-25 F
C543	87-010-544-080		CAP,E 0.1-50
C544	87-010-544-080		CAP,E 0.1-50
C545	87-010-400-080		CAP,E 0.47-50 SME
C546	87-010-400-080		CAP,E 0.47-50 SME
C547	87-010-213-080		C-CAP,S 0.015-50 B
C548	87-010-213-080		C-CAP,S 0.015-50 B
C549	87-018-209-080		CAP,TC-U 0.1-50 F
C550	87-010-183-080		C-CAP,S 2700P-50 B
C553	87-010-182-080		C-CAP,S 2200P-50 B
C554	87-010-182-080		C-CAP,S 2200P-50 B
C557	87-010-178-080		C-CAP,S 1000P-50 B
C558	87-010-178-080		C-CAP,S 1000P-50 B
C597	87-010-404-080		CAP,E 4.7-50 SME
C598	87-010-404-080		CAP,E 4.7-50 SME
C601	87-010-401-080		CAP,E 1-50 SME
C602	87-010-405-080		CAP,E 10-50 SME
C603	87-010-101-080		CAP,E 220-16 SME
C605	87-010-178-080		C-CAP,S 1000P-50 B
C606	87-010-178-080		C-CAP,S 1000P-50 B
C607	87-010-404-080		CAP,E 4.7-50 SME
C608	87-010-404-080		CAP,E 4.7-50 SME
C609	87-010-404-080		CAP,E 4.7-50 SME
C610	87-010-404-080		CAP,E 4.7-50 SME
C611	87-010-177-080		C-CAP,S 820P-50 SL
C612	87-010-177-080		C-CAP,S 820P-50 SL
C613	87-010-404-080		CAP,E 4.7-50 SME
C614	87-010-404-080		CAP,E 4.7-50 SME
C615	87-010-400-080		CAP,E 0.47-50 SME
C616	87-010-400-080		CAP,E 0.47-50 SME
C617	87-010-197-080		C-CAP,S 0.01-25 B
C618	87-010-197-080		C-CAP,S 0.01-25 B
C619	87-010-184-080		C-CAP,S 3300P-50 B
C620	87-010-184-080		C-CAP,S 3300P-50 B
C621	87-012-155-080		C-CAP,S 180P-50 CH
C622	87-012-155-080		C-CAP,S 180P-50 CH
C623	87-010-405-080		CAP,E 10-50 SME
C624	87-010-405-080		CAP,E 10-50 SME
C630	87-010-405-080		CAP,E 10-50 SME
C631	87-010-401-080		CAP,E 1-50 SME
C641	87-010-196-080		C-CAP,S 0.1-25 F
C642	87-010-196-080		C-CAP,S 0.1-25 F
C650	87-010-316-080		C-CAP,S 33P-50 CH
C651	87-010-316-080		C-CAP,S 33P-50 CH
C701	87-010-381-080		CAP,E 330-16 SME
C702	87-010-404-080		CAP,E 4.7-50 SME
C703	87-010-197-080		C-CAP,S 0.01-25 B
C704	87-010-197-080		C-CAP,S 0.01-25 B
C711	87-010-263-080		CAP,E 100-10 SME
C712	87-010-196-080		C-CAP,S 0.1-25 F
C722	87-010-311-080		C-CAP,S 12P-50 CH
C723	87-010-178-080		C-CAP,S 1000P-50 B
C725	87-010-178-080		C-CAP,S 1000P-50 B
C727	87-010-196-080		C-CAP,S 0.1-25 F
C728	87-010-248-080		CAP,E 220-10 SME
C732	87-018-134-080		CAP,TC-U 0.01-16 Y
C770	87-010-405-080		CAP,E 10-50 SME
C771	87-010-405-080		CAP,E 10-50 SME
C772	87-010-194-080		C-CAP,S 0.047-25 F
C773	87-010-196-080		C-CAP,S 0.1-25 F
C774	87-010-263-080		CAP,E 100-10 SME
C775	87-010-405-080		CAP,E 10-50 SME
C776	87-010-197-080		C-CAP,S 0.01-25 B
C777	87-010-400-080		CAP,E 0.47-50 SME
C778	87-010-401-080		CAP,E 1-50 SME
C779	87-010-401-080		CAP,E 1-50 SME
C780	87-010-197-080		C-CAP,S 0.01-25 B
C781	87-010-405-080		CAP,E 10-50 SME
C782	87-010-405-080		CAP,E 10-50 SME
C787	87-010-184-080		C-CAP,S 3300P-50 B
C788	87-010-184-080		C-CAP,S 3300P-50 B
C789	87-010-179-080		C-CAP,S 1200P-50 B
C790	87-010-179-080		C-CAP,S 1200P-50 B
C791	87-010-401-080		CAP,E 1-50 SME
C792	87-010-182-080		C-CAP,S 2200P-50 B
C793	87-010-189-080		C-CAP,S 8200P-50 B
C794	87-010-408-080		CAP,E 47-50 SME
C795	87-010-194-080		C-CAP,S 0.047-25 F
C796	87-010-403-080		CAP,E 3.3-50 SME
C797	87-010-405-080		CAP,E 10-50 SME
C798	87-010-196-080		C-CAP,S 0.1-25 F
C800	87-018-209-080		CAP,TC-U 0.1-50 F
C812	87-018-134-080		CAP,TC-U 0.01-16 Y
C816	87-018-134-080		CAP,TC-U 0.01-16 Y
C817	87-010-197-080		C-CAP,S 0.01-25 B
C818	87-010-197-080		C-CAP,S 0.01-25 B
C819	87-010-197-080		C-CAP,S 0.01-25 B
C820	87-010-260-080		CAP,E 47-25 SME
C821	87-010-197-080		C-CAP,S 0.01-25 B
C822	87-010-197-080		C-CAP,S 0.01-25 B
C823	87-010-197-080		C-CAP,S 0.01-25 B
C824	87-018-209-080		CAP,TC-U 0.1-50 F
C825	87-015-819-080		CHIP CAP 0.01
C826	87-010-196-080		C-CAP,S 0.1-25 F
C827	87-010-196-080		C-CAP,S 0.1-25 F
C828	87-010-197-080		C-CAP,S 0.01-25 B
C829	87-010-197-080		C-CAP,S 0.01-25 B
C830	87-015-819-080		CHIP CAP 0.01

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C831	87-010-197-080		C-CAP,S 0.01-25 B
C835	87-010-197-080		C-CAP,S 0.01-25 B
C840	87-010-197-080		C-CAP,S 0.01-25 B
C926	87-010-196-080		C-CAP,S 0.1-25 F
C941	87-010-197-080		C-CAP,S 0.01-25 B
C942	87-010-311-080		C-CAP,S 12P-50 CH
C944	87-010-154-080		C-CAP,S 10P-50 CH
C946	87-014-050-080		CAP,PP 510P-100 J
C947	87-010-401-080		CAP,E 1-50 SME
C948	87-010-196-080		C-CAP,S 0.1-25 F
C949	87-010-197-080		C-CAP,S 0.01-25 B
C951	87-010-401-080		CAP,E 1-50 SME
C983	87-010-544-080		CAP,E 0.1-50
C987	87-015-819-080		CHIP CAP 0.01
C988	87-015-785-080		C-CAP,0.1-25 F
C990	87-010-197-080		C-CAP,S 0.01-25 B
C993	87-010-197-080		C-CAP,S 0.01-25 B
C995	87-010-197-080		C-CAP,S 0.01-25 B
CF801	87-008-423-010		CF,SFE10.7 MS3G-A
CF802	82-785-747-010		CF,MS2 GHY,R
FFE802	85-NF5-604-010		FE PACK 4(AL)
FT104	85-NF5-617-010		CABLE,FFC 6P-1.25
J250	87-099-678-010		JACK,6.3 W/S BLK
J253	87-009-621-010		JACK,PIN 1P BLK
J254	87-033-227-010		TERMINAL,SP 4P R (Z)
J652	82-MA2-631-010		JACK,PIN 4P RVS
J801	87-033-230-010		TERMINAL,ANT AJ-2016
L201	87-003-383-010		COIL,1UH-S
L202	87-003-383-010		COIL,1UH-S
L403	81-598-635-010		COIL,TRAP BIAS
L404	81-598-635-010		COIL,TRAP BIAS
L451	87-007-336-010		COIL,OSC 85K BIAS
L701	81-631-643-010		COIL,1 POLE MPX
L702	81-631-643-010		COIL,1 POLE MPX
L741	87-006-253-010		COIL,FM DET N
L742	82-NT1-659-010		FLTR,CFAZ-450 2NT
L770	87-003-102-080		COIL,10UH
L832	87-003-098-080		COIL,2.2UH
L941	87-006-208-010		COIL,ANT LW
L942	87-007-305-010		COIL,OSC LW S
L981	81-MX4-619-010		AM PACK 4
R105	87-022-050-080		RESIS,METAL 1W-0.22J
R106	87-022-050-080		RESIS,METAL 1W-0.22J
R203	87-022-619-080		RES,M/F 0.47-3W J
R204	87-022-619-080		RES,M/F 0.47-3W J
R205	87-022-619-080		RES,M/F 0.47-3W J
R206	87-022-619-080		RES,M/F 0.47-3W J
RY101	87-045-361-010		RELAY,DH12D2-OS(M)-2
RY102	87-045-382-010		RELAY,OUAZ-SH-112L
SFR301	87-024-174-080		SFR,33K DIA6 V
SFR302	87-024-174-080		SFR,33K DIA6 V
SFR303	87-024-174-080		SFR,33K DIA6 V
SFR304	87-024-174-080		SFR,33K DIA6 V
SFR305	87-024-175-080		SFR,47K DIA6 V
SFR306	87-024-175-080		SFR,47K DIA6 V
SFR451	87-024-175-080		SFR,47K DIA6 V
SFR452	87-024-175-080		SFR,47K DIA6 V
SFR722	87-024-171-080		SFR,4.7K DIA6 V
TC701	87-011-253-080		TRIMER,30P LAR
TC942	87-011-253-080		TRIMER,30P LAR
VR651	82-NF5-660-010		VR,50K BX2 RK14K 12A
W101	85-NF5-628-010		F-CABLE,7P-2.5
X703	84-508-618-010		VIB,CER CSB 456 F15
X721	87-030-163-010		VIB,XTAL 7.2MHZ(NDK)

FRONT C.B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C201	87-010-404-040		CAP,E 4.7-50 SME
C202	87-010-404-040		CAP,E 4.7-50 SME
C203	87-010-408-040		CAP-E 47-50 SME
C204	87-010-401-040		CAP,E 1-50 SME
C205	87-010-555-040		CAP,E 100-10 GAS
C206	87-010-550-040		CAP,E 100-6.3 GAS
C207	87-010-494-040		CAP,E 1-50 GAS
C208	87-010-196-080		C-CAP,S 0.1-25 F
C209	87-010-550-040		CAP,E 100-6.3 GAS
C212	87-010-560-040		CAP,E 10-50 GAS
C213	87-010-196-080		C-CAP,S 0.1-25 F
C214	87-010-196-080		C-CAP,S 0.1-25 F
C215	87-010-196-080		C-CAP,S 0.1-25 F
C220	87-010-317-080		C-CAP,S 39P-50 CH
C221	87-010-315-080		C-CAP,S 27P-50 CH
C222	87-010-318-080		C-CAP,S 47P-50 CH
C223	87-010-178-080		C-CAP,S 1000P-50 B
C250	87-010-178-080		C-CAP,S 1000P-50 B
C381	87-010-196-080		C-CAP,S 0.1-25 F
C382	87-010-196-080		C-CAP,S 0.1-25 F
C383	87-010-196-080		C-CAP,S 0.1-25 F
C384	87-010-196-080		C-CAP,S 0.1-25 F
C385	87-010-322-080		C-CAP,S 100P-50 CH
C389	87-010-196-080		C-CAP,S 0.1-25 F
C401	87-010-196-080		C-CAP,S 0.1-25 F
C402	87-010-196-080		C-CAP,S 0.1-25 F
C501	87-010-060-080		CAP,E 100-16 7L
C601	87-010-405-040		CAP,E 10-50 SME
C602	87-010-176-080		C-CAP,S 680P-50 SL
C603	87-010-196-080		C-CAP,S 0.1-25 F
C605	87-010-319-080		C-CAP,S 56P-50 CH
C606	87-010-494-040		CAP,E 1-50 GAS
C607	87-010-196-080		C-CAP,S 0.1-25 F
C608	87-010-322-080		C-CAP,S 100P-50 CH
C609	87-010-491-040		CAP,E 0.22-50 GAS
C610	87-012-155-080		C-CAP,S 180P-50 CH
C611	87-010-406-040		CAP,E 22-50 SME
C614	87-010-555-040		CAP,E 100-10 GAS
C615	87-010-401-040		CAP,E 1-50 SME
C616	87-018-209-080		CAP,TC-U 0.1-50 F
C622	87-015-785-080		C-CAP,0.1-25 F
C646	87-010-196-080		C-CAP,S 0.1-25 F
C647	87-010-180-080		C-CAP,S 1500P-50 B
C648	87-012-156-089		C-CAP,S 220P-50 CH
C650	87-010-152-080		C-CAP,S 8P-50 CH
C651	87-010-152-080		C-CAP,S 8P-50 CH
C653	87-012-358-080		C-CAP S 0.47-10 FZ
C654	87-010-178-080		C-CAP,S 1000P-50 B
C656	87-010-196-080		C-CAP,S 0.1-25 F
C657	87-010-555-040		CAP,E 100-10 GAS
C659	87-010-184-080		C-CAP,S 3300P-50 B
C660	87-010-426-080		C-CAP,S 0.012-25 B
C661	87-012-358-080		C-CAP S 0.47-10 FZ
C663	87-010-555-040		CAP,E 100-10 GAS
C664	87-012-141-080		C-CAP,S 0.22-16 F
C666	87-010-179-080		C-CAP,S 1200P-50 B
C667	87-010-177-080		C-CAP,S 820P-50 SL
C669	87-010-497-040		CAP,E 4.7-35 5L
C670	87-010-497-040		CAP,E 4.7-35 5L
C671	87-010-426-080		C-CAP,S 0.012-25 B
C672	87-018-209-080		CAP,TC-U 0.1-50 F
C701	87-010-177-080		C-CAP,S 820P-50 SL
C702	87-010-177-080		C-CAP,S 820P-50 SL
C710	87-010-553-040		CAP,E 47-16 GAS
C711	87-010-194-080		C-CAP,S 0.047-25 F
C712	87-010-194-080		C-CAP,S 0.047-25 F
C713	87-010-195-080		C-CAP,S 0.068-25 F
C714	87-010-195-080		C-CAP,S 0.068-25 F
C715	87-010-186-080		C-CAP,S 4700P-50 B
C716	87-010-186-080		C-CAP,S 4700P-50 B
C717	87-010-497-040		CAP,E 4.7-35 5L
C718	87-010-497-040		CAP,E 4.7-35 5L
C721	87-010-495-040		CAP,E 2.2-50 GAS

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C722	87-010-495-040		CAP,E 2.2-50 GAS
FB100	87-008-372-080		FLTR,EMI BL 01RN1
FL101	85-NF5-630-010		FL,BJ350GK
FT101	85-NF5-615-010		CABLE,FFC 15P-1.25
FT102	85-NF5-618-010		CABLE,FFC 13P-1.25
FT103	85-NF5-616-010		CABLE,FFC 6P-1.25
J601	82-NF7-630-010		JACK,3.5 MO
J621	82-NF7-630-010		JACK,3.5 MO
L650	87-005-487-080		COIL,150UH J FLR50
LED401	87-070-281-080		LED,SLZ736A-25-S-T1
LED402	87-070-281-080		LED,SLZ736A-25-S-T1
LED403	87-070-281-080		LED,SLZ736A-25-S-T1
LED404	87-070-281-080		LED,SLZ736A-25-S-T1
LED405	87-070-281-080		LED,SLZ736A-25-S-T1
LED406	87-070-281-080		LED,SLZ736A-25-S-T1
LED407	87-070-199-080		LED,SLP738F-81-S-T1
LED408	87-070-199-080		LED,SLP738F-81-S-T1
LED409	87-070-199-080		LED,SLP738F-81-S-T1
LED410	87-070-199-080		LED,SLP738F-81-S-T1
LED411	87-070-199-080		LED,SLP738F-81-S-T1
LED412	87-070-199-080		LED,SLP738F-81-S-T1
LED413	87-070-199-080		LED,SLP738F-81-S-T1
LED414	87-070-199-080		LED,SLP738F-81-S-T1
LED420	87-070-201-080		LED,SLP9118C-51-S-T1
LED421	87-070-201-080		LED,SLP9118C-51-S-T1
LED422	87-070-201-080		LED,SLP9118C-51-S-T1
LED423	87-070-201-080		LED,SLP9118C-51-S-T1
LED437	87-070-278-010		LED,SLZ738A-24-S
LED438	87-070-290-010		LED,SLZ936C-30-S
LED439	87-070-278-010		LED,SLZ738A-24-S
LED440	87-070-278-010		LED,SLZ738A-24-S
LED441	87-070-290-010		LED,SLZ936C-30-S
LED442	87-070-278-010		LED,SLZ738A-24-S
S301	87-036-397-080		SW,TACT SKQNAB
S302	87-036-397-080		SW,TACT SKQNAB
S303	87-036-397-080		SW,TACT SKQNAB
S304	87-036-397-080		SW,TACT SKQNAB
S305	87-036-397-080		SW,TACT SKQNAB
S321	87-036-397-080		SW,TACT SKQNAB
S322	87-036-397-080		SW,TACT SKQNAB
S323	87-036-397-080		SW,TACT SKQNAB
S324	87-036-397-080		SW,TACT SKQNAB
S325	87-036-397-080		SW,TACT SKQNAB
S326	87-036-397-080		SW,TACT SKQNAB
S327	87-036-170-080		SW,TACT
S328	87-036-170-080		SW,TACT
S329	87-036-170-080		SW,TACT
S330	87-036-397-080		SW,TACT SKQNAB
S331	87-036-397-080		SW,TACT SKQNAB
S332	87-036-397-080		SW,TACT SKQNAB
S341	87-036-397-080		SW,TACT SKQNAB
S342	87-036-397-080		SW,TACT SKQNAB
S343	87-036-397-080		SW,TACT SKQNAB
S344	87-036-397-080		SW,TACT SKQNAB
S345	87-036-397-080		SW,TACT SKQNAB
S346	87-036-397-080		SW,TACT SKQNAB
S347	87-036-397-080		SW,TACT SKQNAB
S348	87-036-397-080		SW,TACT SKQNAB
VR600	83-NM1-627-010		VR,10KB RK11K1130
VR601	81-MX4-637-010		VR,10KA RK11K1130
X201	87-030-376-080		VIB,CER CSA5.76MG200

MVR C.B

C731	87-010-322-080		C-CAP,S 100P-50 CH
C732	87-010-322-080		C-CAP,S 100P-50 CH
C735	87-010-402-040		CAP,E 2.2-50 SME
C736	87-010-402-040		CAP,E 2.2-50 SME
C737	87-010-374-040		CAP,E 47-10
C738	87-010-374-040		CAP,E 47-10
C741	87-010-198-080		C-CAP,S 0.022-25 B
C745	87-016-073-040		CAP,E 1-50 FX
C746	87-016-073-040		CAP,E 1-50 FX
C747	87-010-401-040		CAP,E 1-50 SME
C748	87-010-401-040		CAP,E 1-50 SME
C750	87-010-381-080		CAP,E 330-16 SME
C751	87-010-401-040		CAP,E 1-50 SME
C752	87-010-401-040		CAP,E 1-50 SME
C757	87-010-404-040		CAP,E 4.7-50 SME
C773	87-010-546-040		CAP,E 0.33-50
C777	87-010-402-040		CAP,E 2.2-50 SME
C778	87-010-402-040		CAP,E 2.2-50 SME
C797	87-010-402-040		CAP,E 2.2-50 SME
MVR741	85-NF5-635-010		VOL,50KBX2 (M)

KEY C.B

LED415	87-070-197-080		LED,SLP7118C-51-S-T1
LED416	87-070-197-080		LED,SLP7118C-51-S-T1
LED417	87-070-197-080		LED,SLP7118C-51-S-T1
S349	87-036-397-080		SW,TACT SKQNAB
S350	87-036-397-080		SW,TACT SKQNAB
S351	87-036-397-080		SW,TACT SKQNAB
S352	87-036-397-080		SW,TACT SKQNAB
S353	87-036-397-080		SW,TACT SKQNAB

AC C.B

⚠	87-033-213-089		CLAMP FUSE SMK
⚠ F102	87-035-369-010		FUSE,5A 250V TE
⚠ F103	87-035-369-010		FUSE,5A 250V TE

PT C.B

⚠	87-033-213-089		CLAMP FUSE SMK
⚠	82-304-743-019		TERMINAL 1P
⚠ F101	87-035-365-010		FUSE,2A 250V TE
⚠ PT101	85-NF5-625-010		PT,5NF-5 EZK

DECK C.B

SFR1	87-024-581-089		SFR,3.3K DIA 6H
SOL1	82-ZM1-626-010		SOL ASSY,27K
SOL2	82-ZM1-626-010		SOL ASSY,27K
SW1	87-036-110-019		SW,PUSH SPPB 62
SW2	87-036-110-019		SW,PUSH SPPB 62
SW3	87-036-110-019		SW,PUSH SPPB 62
SW4	87-036-110-019		SW,PUSH SPPB 62
SW5	87-036-110-019		SW,PUSH SPPB 62
SW6	87-036-378-019		SW,PUSH 1-1-1 SH2
SW8	87-036-378-019		SW,PUSH 1-1-1 SH2
SW9	87-036-378-019		SW,PUSH 1-1-1 SH2

HEAD-1 C.B

HEAD-2 C.B

TRANSISTOR ILLUSTRATION

E C B

2SA1296
2SC2240
2SC3266
2SD655
KTC3198

E C B

2SA952

E C B

2SA933
DTA114YS

D G S

2SK365

E C B

2SA1318
2SC3331

E C B

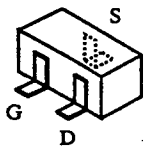
2SA935

B C E

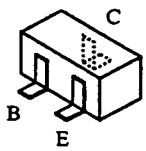
2SB1370

G D S

2SJ176
2SK1094



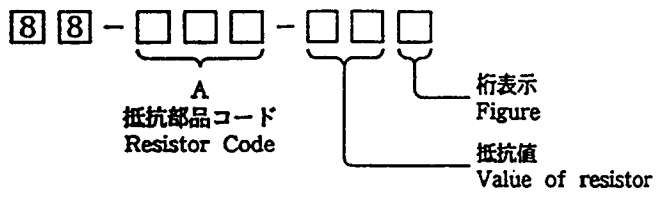
2SK543



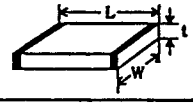
2SA1162	DTA143EK
2SC2712	DTA144EK
2SC2714	DTA144WK
2SC3326	DTC114EK
2SC3722	DTC144EK

○チップ抵抗部品コード/CHIP RESISTOR PART CODE

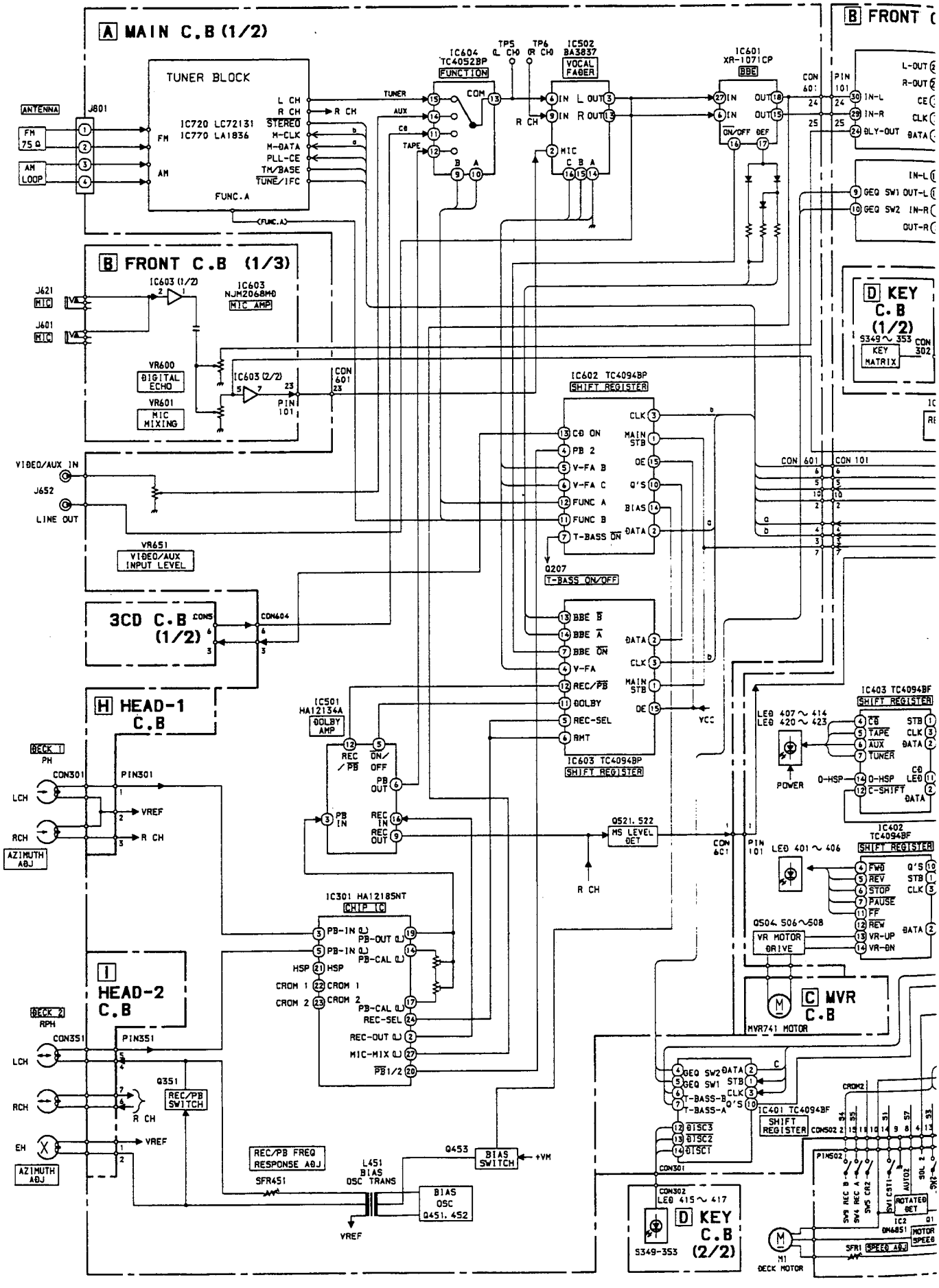
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



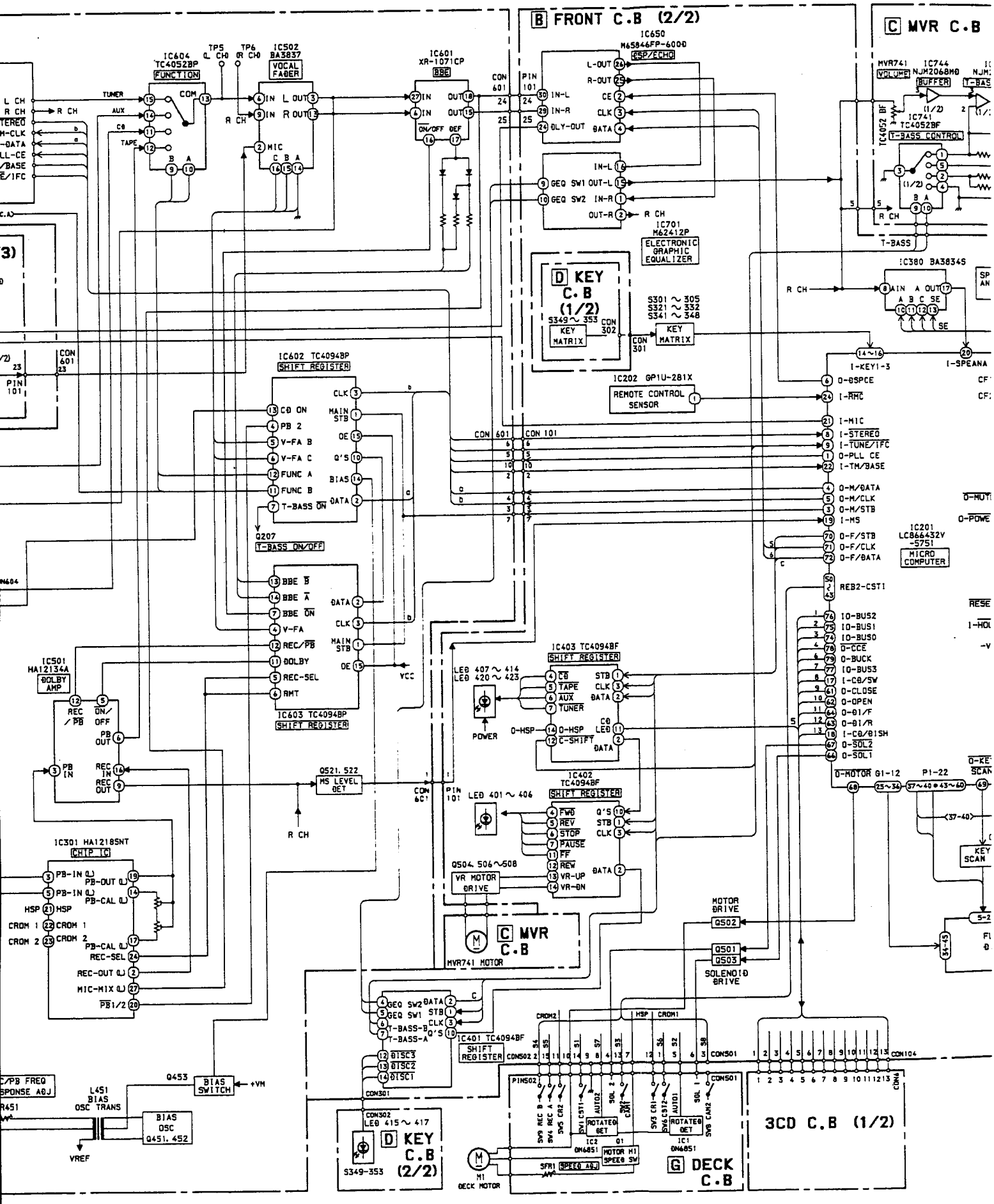
チップ抵抗
Chip resistor

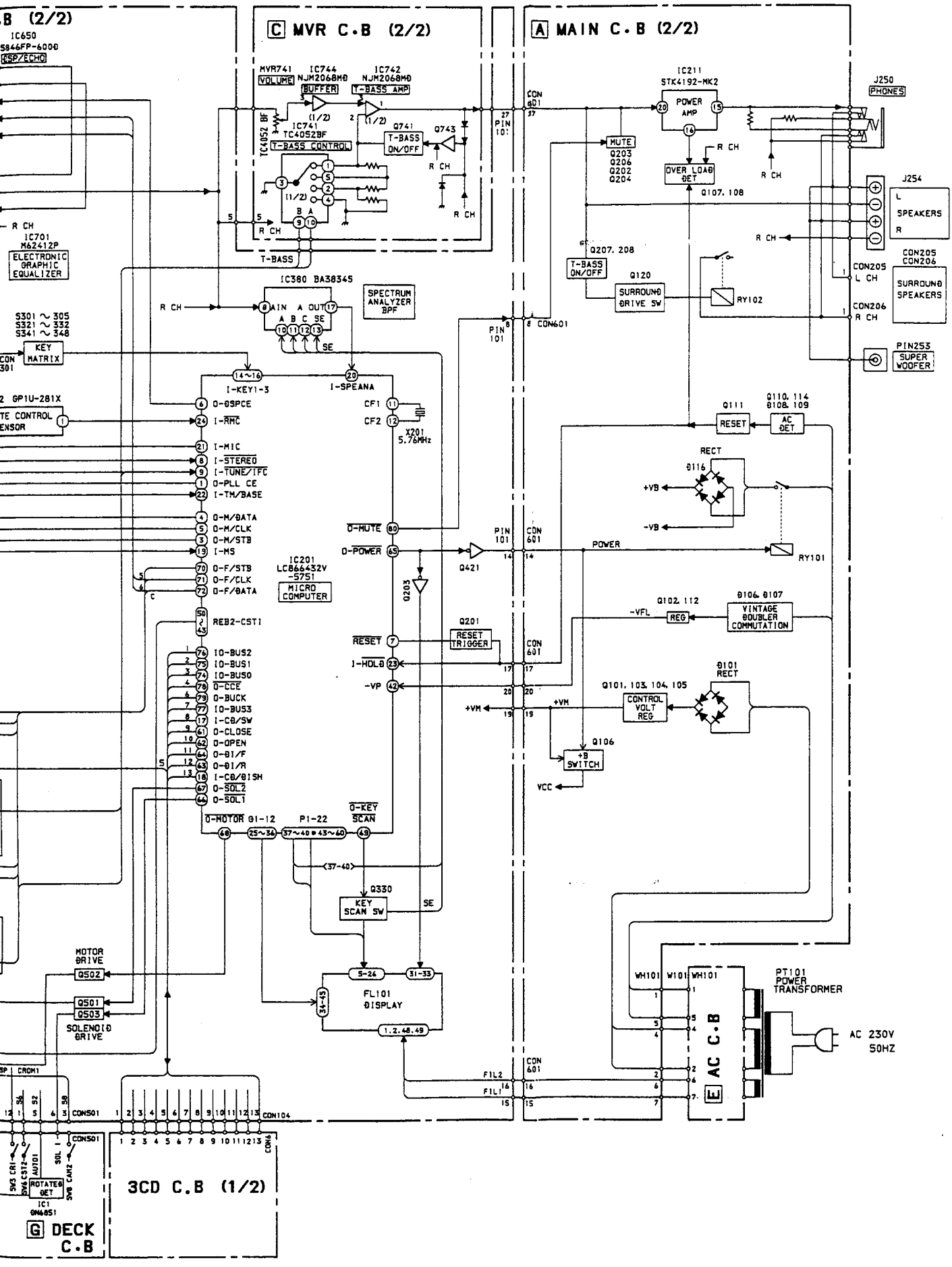
Wattage 容量	Type 種類	Tolerance 許容誤差	Symbol 記号	Dimensions/寸法 (mm) Form/外形	L	W	t	Resistor Code : A 抵抗コード : A
1/32W	1608	±5%	CJ		1.6	0.8	0.35	108
1/10W	2125	±5%	CJ		2	1.25	1.45	118
1/8W	3126	±5%	CJ		3.2	1.6	0.5 ~0.7	128

BLOCK DIAGRAM – 1 (MAIN / FRONT)

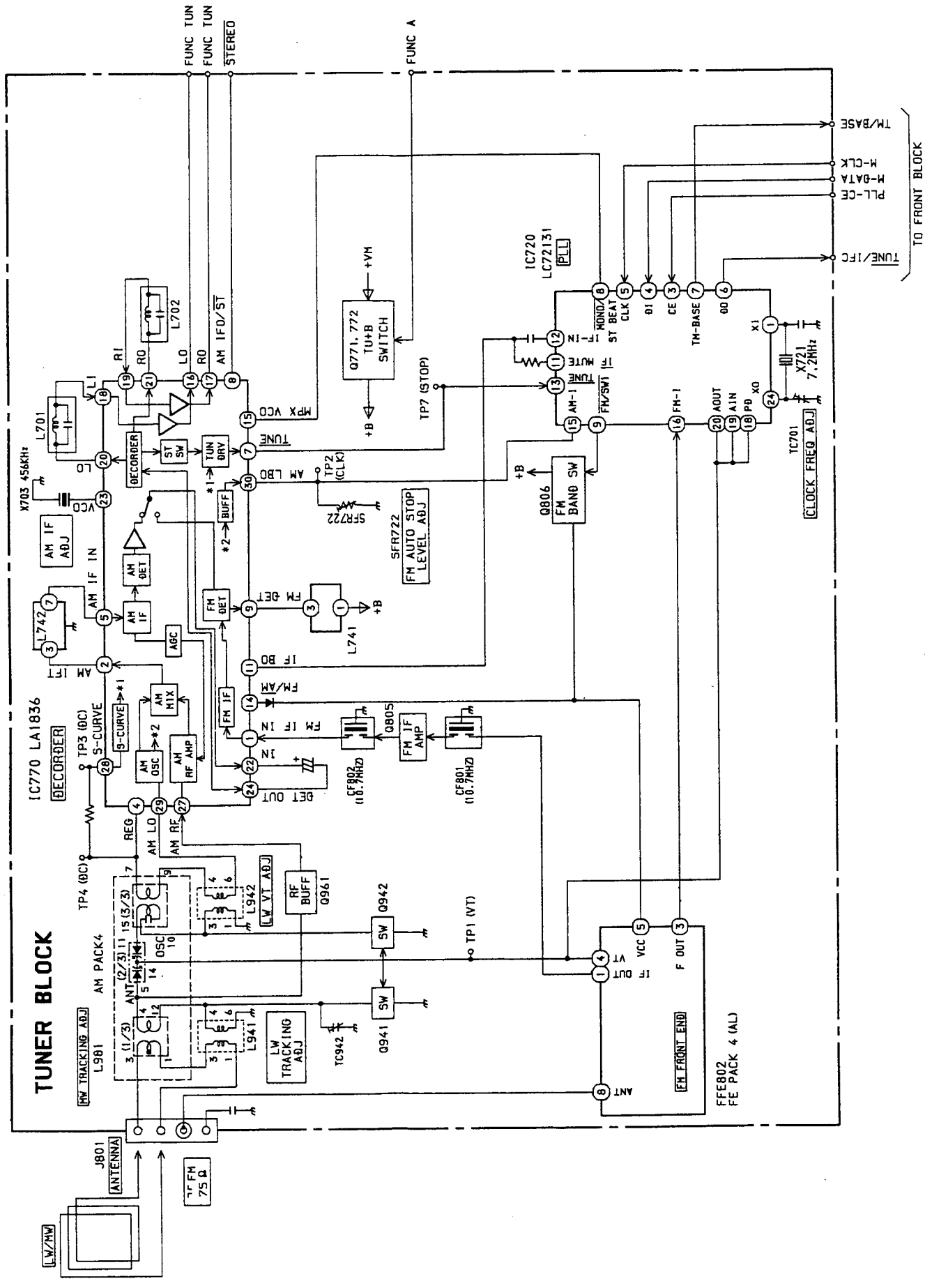


AIN / FRONT)


B FRONT C.B (2/2)
C MVR C.B
D KEY C.B (1/2)
D KEY C.B (2/2)
G DECK C.B
3CD C.B (1/2)
IC650 M65846FP-600D
SP/ECHO
IC604 TC4052BP
FUNCTION
IC502 BA3837
VOCAL FADER
IC601 XR-1071CP
BBE
IC701 M62412P
ELECTRONIC GRAPHIC EQUALIZER
IC602 TC4094BP
SHIFT REGISTER
IC603 TC4094BP
SHIFT REGISTER
IC403 TC4094BF
SHIFT REGISTER
IC402 TC4094BF
SHIFT REGISTER
IC401 TC4094BF
SHIFT REGISTER
IC202 GP1U-281X
REMOTE CONTROL SENSOR
IC201 LC866432V -5751
MICRO COMPUTER
IC501 HA12134A
DOLBY AMP
IC301 HA1218SNT
CHIP IC
IC380 BA38345
IC744 NJM2068MD
BUFFER
IC741
T-BASS CONTROL
Q207
T-BASS ON/OFF
Q521, 522
MS LEVEL DET
Q504, 506~508
VR MOTOR DRIVE
MOTOR DRIVE
Q502
Q501
Q503
SOLENOID DRIVE
Q453
BIAS SWITCH
L451
BIAS OSC TRANS
BIAS OSC Q451, 452
VREF
MVR741 MOTOR
DECK MOTOR
KEY MATRIX
S301 ~ 305
S321 ~ 332
S341 ~ 348
S349 ~ 353
REMOTE CONTROL SENSOR
POWER
R CH
T-BASS
I-KEY1-3
I-SPEANA
I-RMC
I-MIC
I-STEREO
I-TUNE/IFC
I-PLL CE
I-TM/BASE
O-M/DATA
O-M/CLK
O-M/STB
I-MS
O-F/STB
O-F/CLK
O-F/DATA
REB2-CST1
IO-BUS2
IO-BUS1
IO-BUS0
O-CCE
O-BUCK
IO-BUS3
I-CD/SW
O-CLOSE
O-OPEN
O-01/F
O-01/R
I-CD/81SH
O-SOL2
O-SOL1
O-MOTOR 01-12
P1-22
KEY SCAN
CON 601
CON 101
CON 301
CON 302
CON 501
CON 502
CON 104
CON 601
CON 302
MAIN STB
BIAS
Q'S
DOLBY
REC-SEL
REC-OUT
MIC-MIX
PB-IN
PB-OUT
PB-CAL
CROM 1
CROM 2
HSP
VCC
+VM

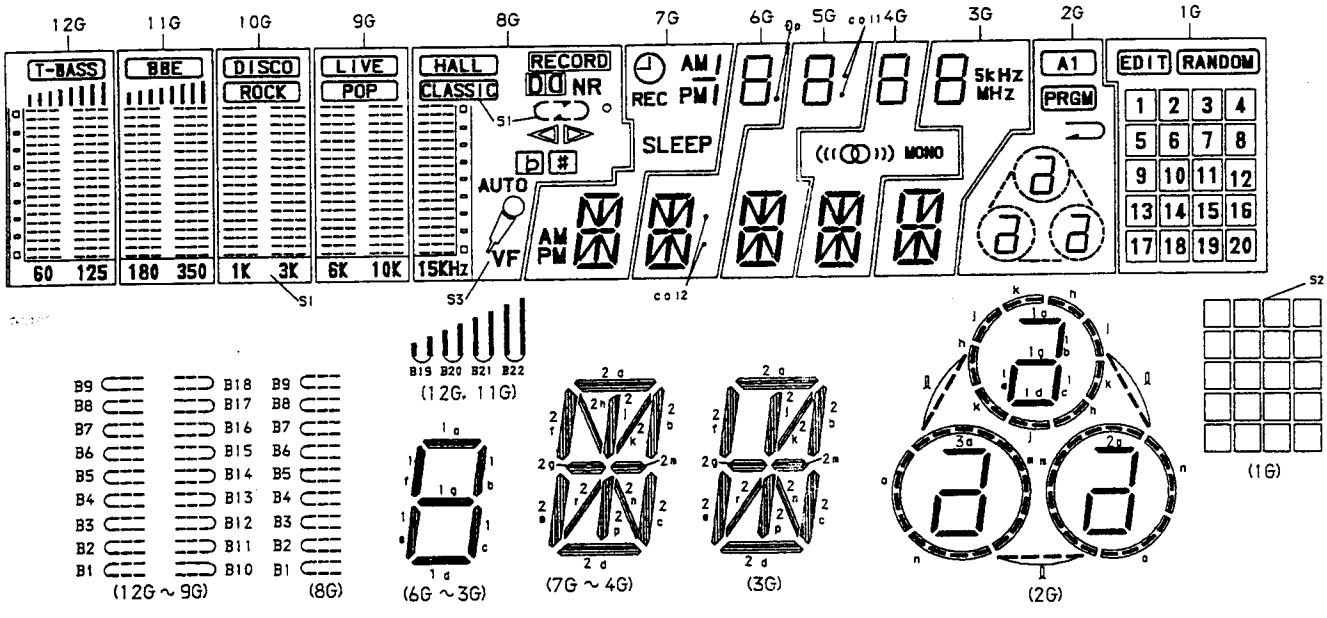

C MVR C.B (2/2)
A MAIN C.B (2/2)
MVR741 VOLUME
IC744 NJM2068MD BUFFER
IC742 NJM2068MD T-BASS AMP
IC741 TC4052BF T-BASS CONTROL
Q741 T-BASS ON/OFF
Q743
IC211 STK4192-MK2 POWER AMP
J250 PHONES
MUTE Q203 Q206 Q202 Q204
OVER LOAD DET
Q107, 108
J254 L SPEAKERS R
Q207, 208 T-BASS ON/OFF
Q120 SURROUND DRIVE SW
RY102
CON205 CON206 SURROUND SPEAKERS
PIN253 SUPER WOOFER
IC380 BA3834S
SPECTRUM ANALYZER BPF
IC701 M62412P ELECTRONIC GRAPHIC EQUALIZER
S301 ~ 305 S321 ~ 332 S341 ~ 348 KEY MATRIX
I-KEY1-3
I-SPEANA
Q111 RESET
Q110, 114 Q108, 109 AC DET
RECT D116
RY101
X201 5.76MHz
IC201 LC866432V -5751 MICRO COMPUTER
O-MUTE
O-POWER
Q421
Q203
Q201 RESET TRIGGER
REB2-CST1
I-HOLD
-VP
+VM
Q102, 112 REG
Q106, Q107 VINTAGE DOUBLER COMMUTATION
Q101, 103, 104, 105 CONTROL VOLT REG
Q101 RECT
Q106 +B SWITCH
VCC
O-MOTOR G1-12
P1-22
O-KEY SCAN
Q330 KEY SCAN SW
MOTOR DRIVE
Q502
Q501
Q503
SOLENOID DRIVE
FL101 DISPLAY
PT101 POWER TRANSFORMER
AC 230V 50HZ
E AC C.B
3CD C.B (1/2)
G DECK C.B
IC1 DN6851 ROTATE DET

BLOCK DIAGRAM – 2 (TUNER)



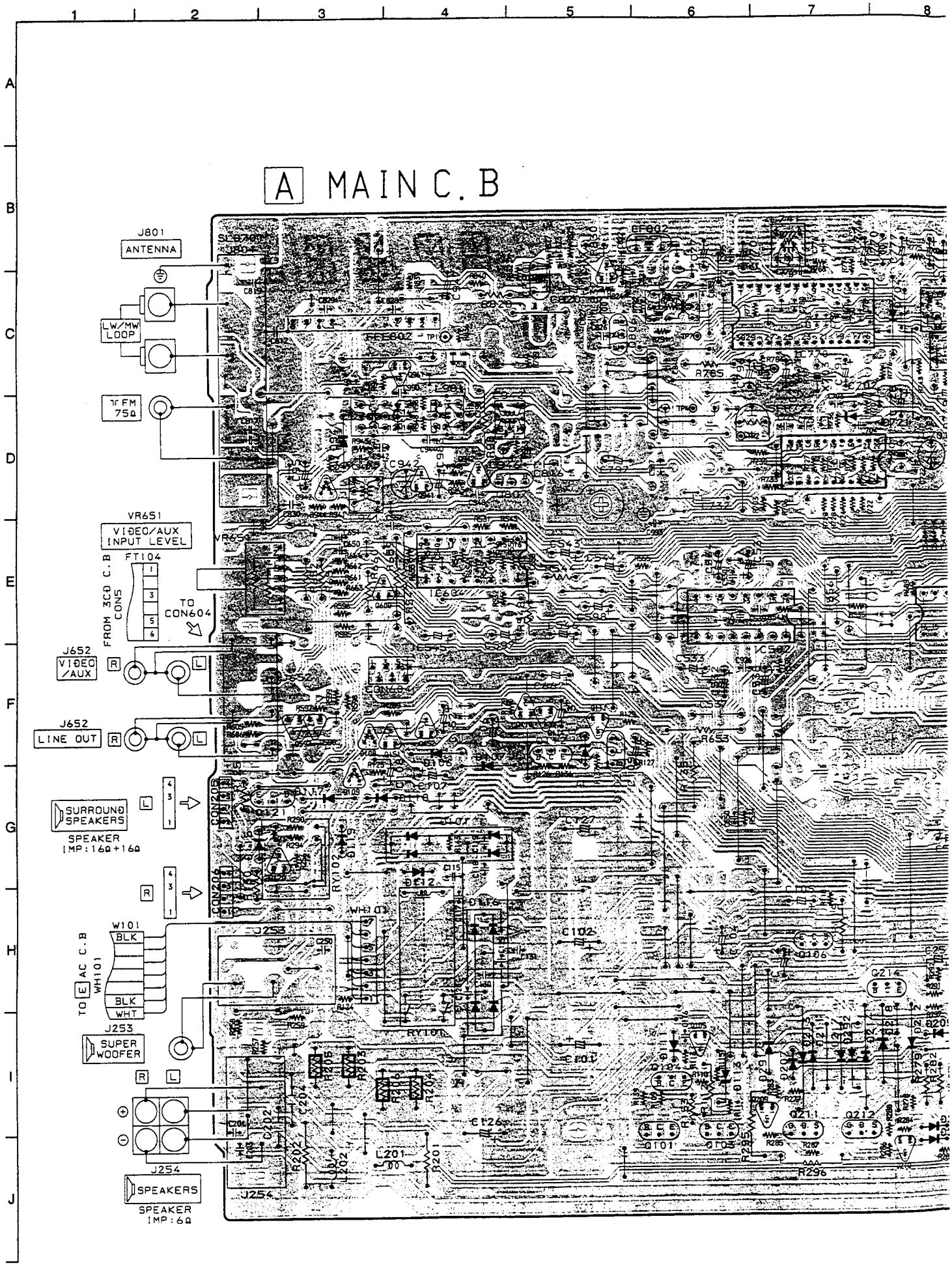
FL (BJ350GK) GRID ASSIGNMENT / ANODE CONNECTION

GRID ASSIGNMENT



ANODE CONNECTION

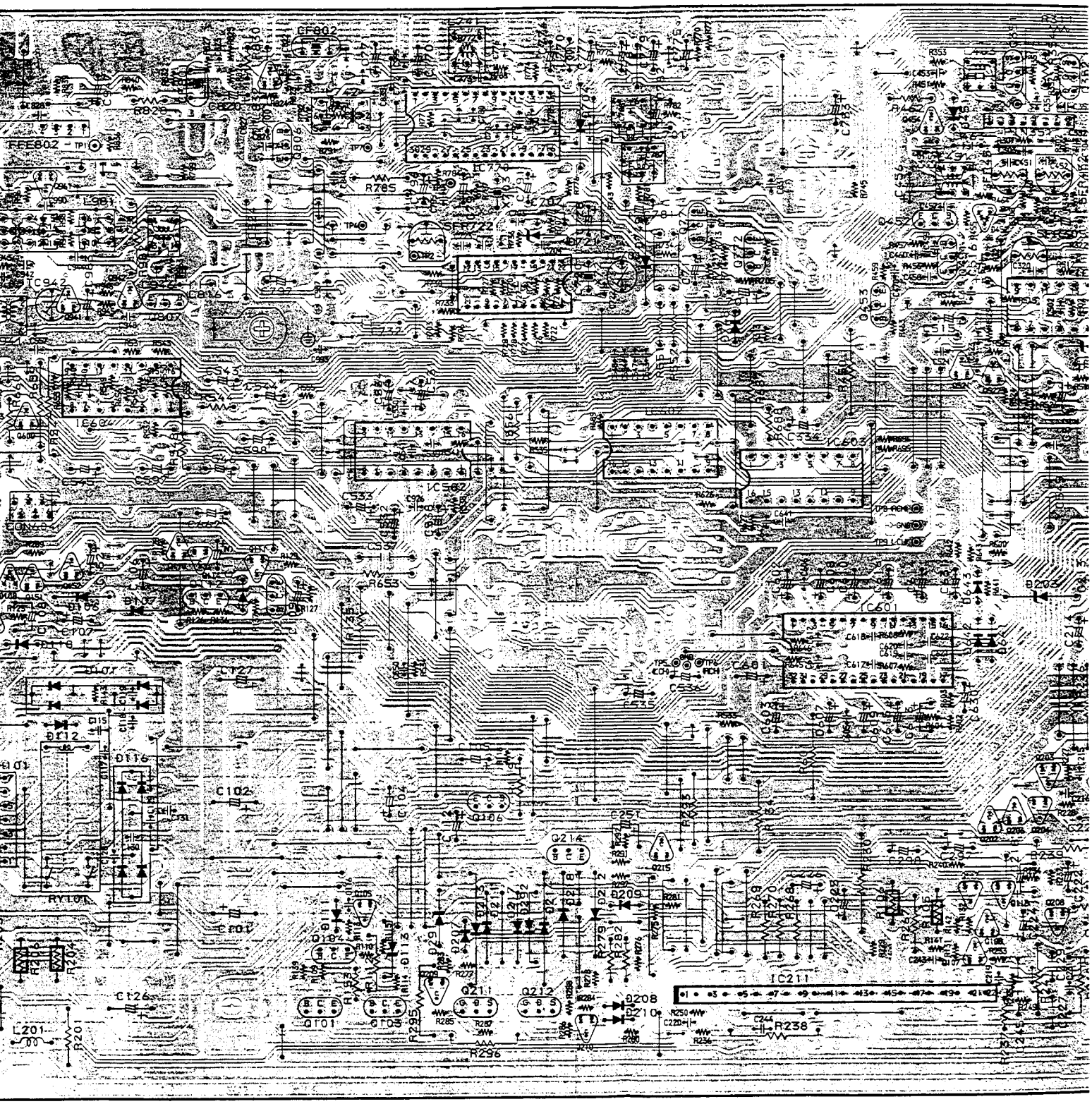
	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	B10	B10	B10	B10	S3	2d	2d	2d	2d	2d	n	**20**
P2	B1	B1	B1	B1	B1	2j ,2p	2j ,2p	2j ,2p	2j, 2p	2j, 2p	o	**19**
P3	B11	B11	B11	B11	**AUTO**	2n	2n	2n	2n	2n	3e	**18**
P4	B2	B2	B2	B2	B2	2r	2r	2r	2r	2r	3c	**17**
P5	B12	B12	B12	B12	(b)	2c	2c	2c	2c	2c	3a,3d,3g	**16**
P6	B3	B3	B3	B3	B3	2e	2e	2e	2e	2e	3b	**15**
P7	B13	B13	B13	B13	(#)	2m	2m	2m	2m	2m	2e	**14**
P8	B4	B4	B4	B4	B4	2g	2g	2g	2g	2g	2c	**13**
P9	B5	B5	B5	B5	B5	2f	2f	2f	2f	2f	2a,2d,2g	**12**
P10	B15	B15	B15	B15	▷	2b	2b	2b	2b	2b	l	**11**
P11	B6	B6	B6	B6	B6	2k	2k	2k	2k	2k	j	**10**
P12	B16	B16	B16	B16	◁	2h	2h	2h	2h	**MHz**	h	**9**
P13	B7	B7	B7	B7	B7	2a	2a	2a	2a	2a	k	**8**
P14	B14	B14	B14	B14	❩	**PM** (DOWN)	col 2	col1 (UP)	**MONO**	**KHz**	2b	**7**
P15	B17	B17	B17	B17	❨	**AM** (DOWN)	9p	col1 (DOWN)	((◎))	**5**	1e	**6**
P16	B8	B8	B8	B8	B8	**SLEEP**	1d	1d	1d	1d	1a,1d,1g	**5**
P17	B18	B18	B18	B18	○	**REC**	1e	1e	1e	1e	1c	**4**
P18	B9	B9	B9	B9	B9	**PM** (UP)	1c	1c	1c	1c	1b	**3**
P19	B19 (T-BASS)	B19 (BBE)	(ROCK)	(POP)	DO NR	**AM** (UP)	1g	1g	1g	1g	m	**2**
P20	B20	B20	(DISCO)	(LIVE)	RECORD	—	1f	1f	1f	1f	A1	**1**
P21	B21	B21	—	—	CLASSIC	/	1b	1b	1b	1b	↵	EDIT
P22	B22	B22	—	—	HALL	◴	1a	1a	1a	1a	PRGM	RANDOM
P23	S1 **T-BASS**	S1	S1 **ROCK**	S1 **POP**	S1	—	—	—	—	—	—	S2
P24	—	**BBE**	—	—	—	—	—	—	—	—	—	—
P25	—	—	**DISCO**	**LIVE**	**HALL**	—	—	—	—	—	—	—
P26	—	—	—	—	b #	—	—	—	—	—	—	—

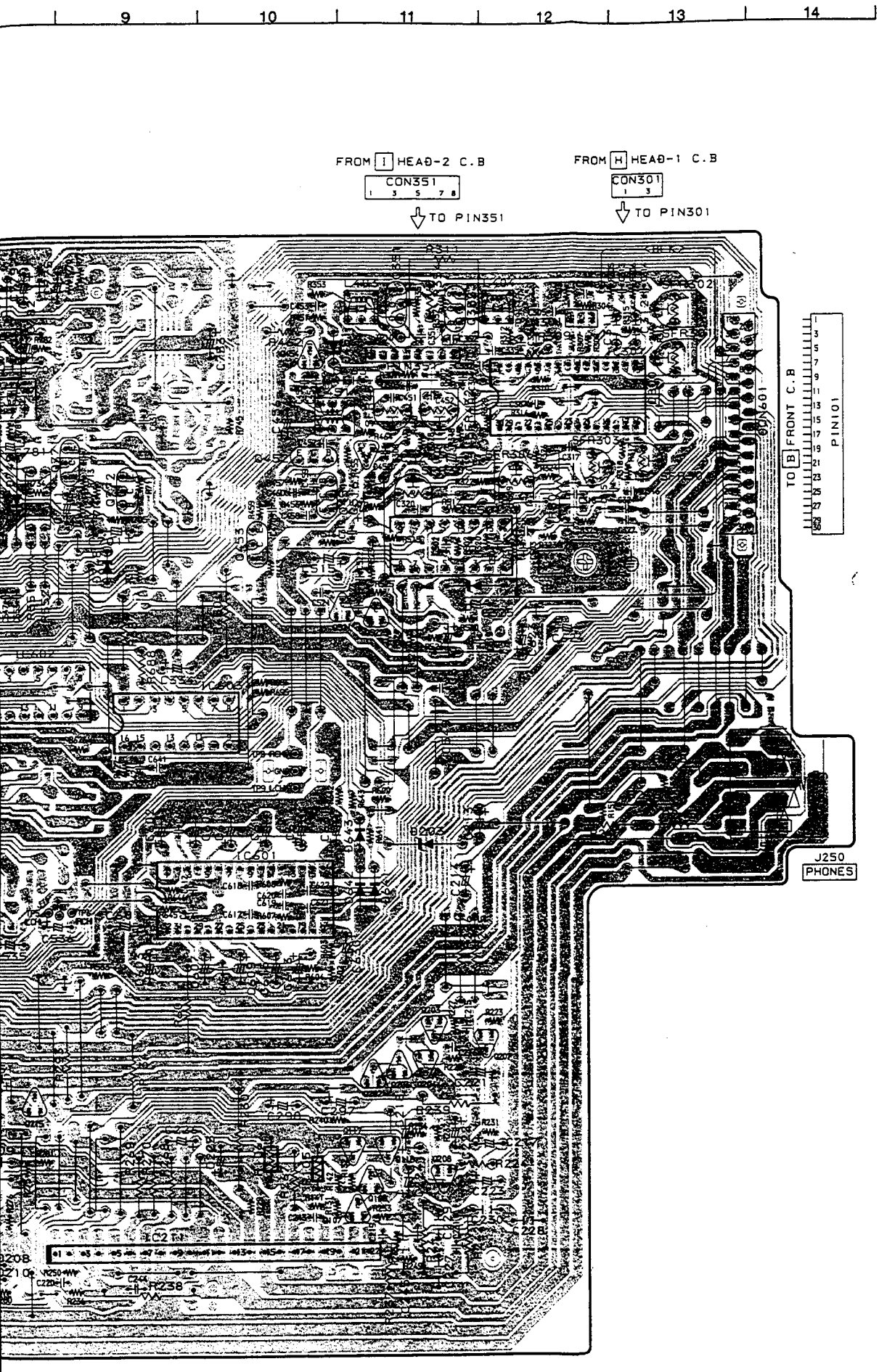

A MAIN C.B
J801
ANTENNA
LW/MW LOOP
FM 75Ω
VR651
VIDEO/AUX INPUT LEVEL
FT104
FROM 3CΩ C.B CONS
TO CON604
J652
VIDEO /AUX
J652
LINE OUT
SURROUND SPEAKERS
SPEAKER IMP:16Ω+16Ω
W101
TO AC C.B WH101
BLK
BLK
WHT
J253
SUPER WOOFER
J254
SPEAKERS
SPEAKER IMP:6Ω

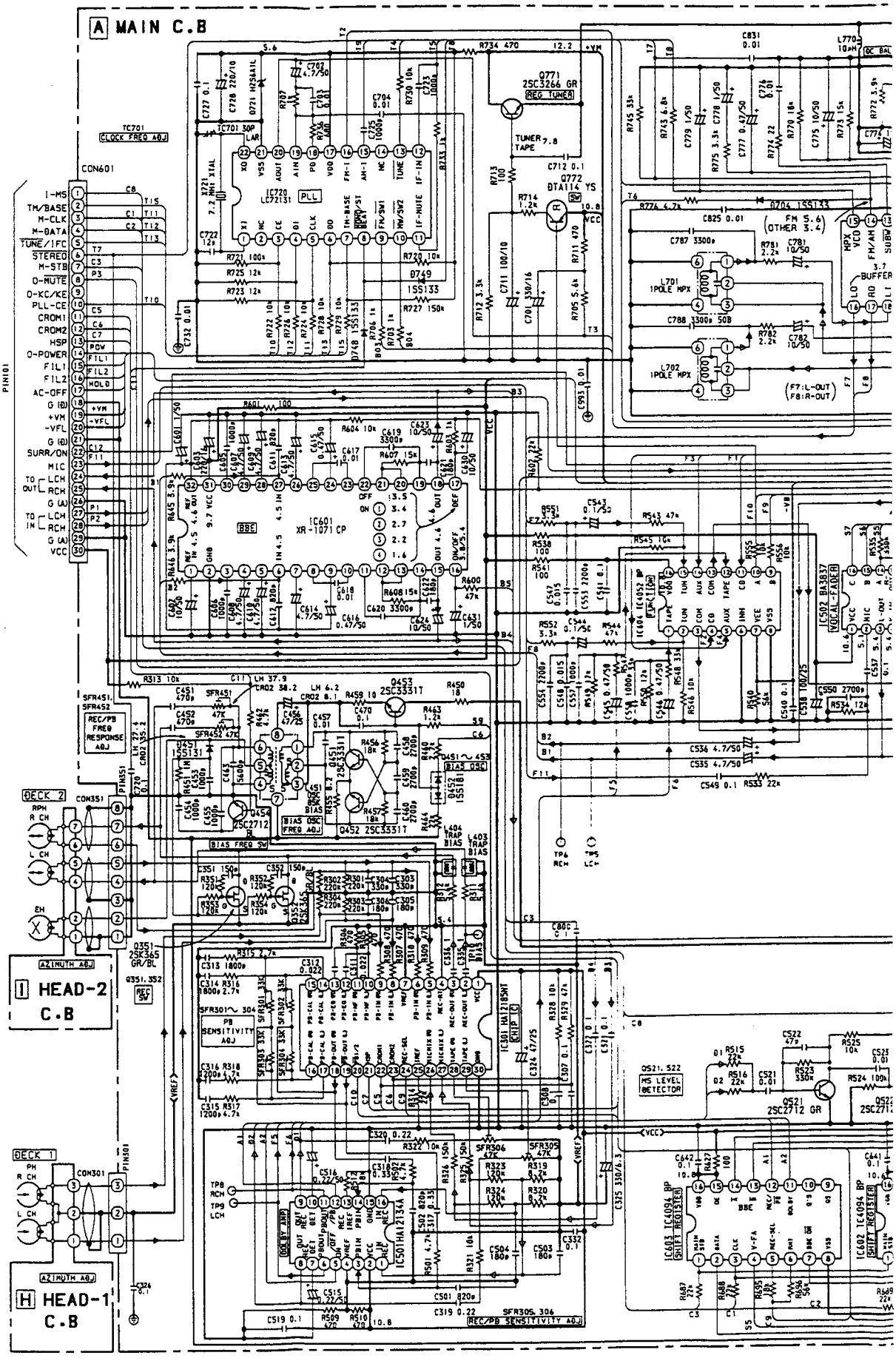
4 5 6 7 8 9 10 11

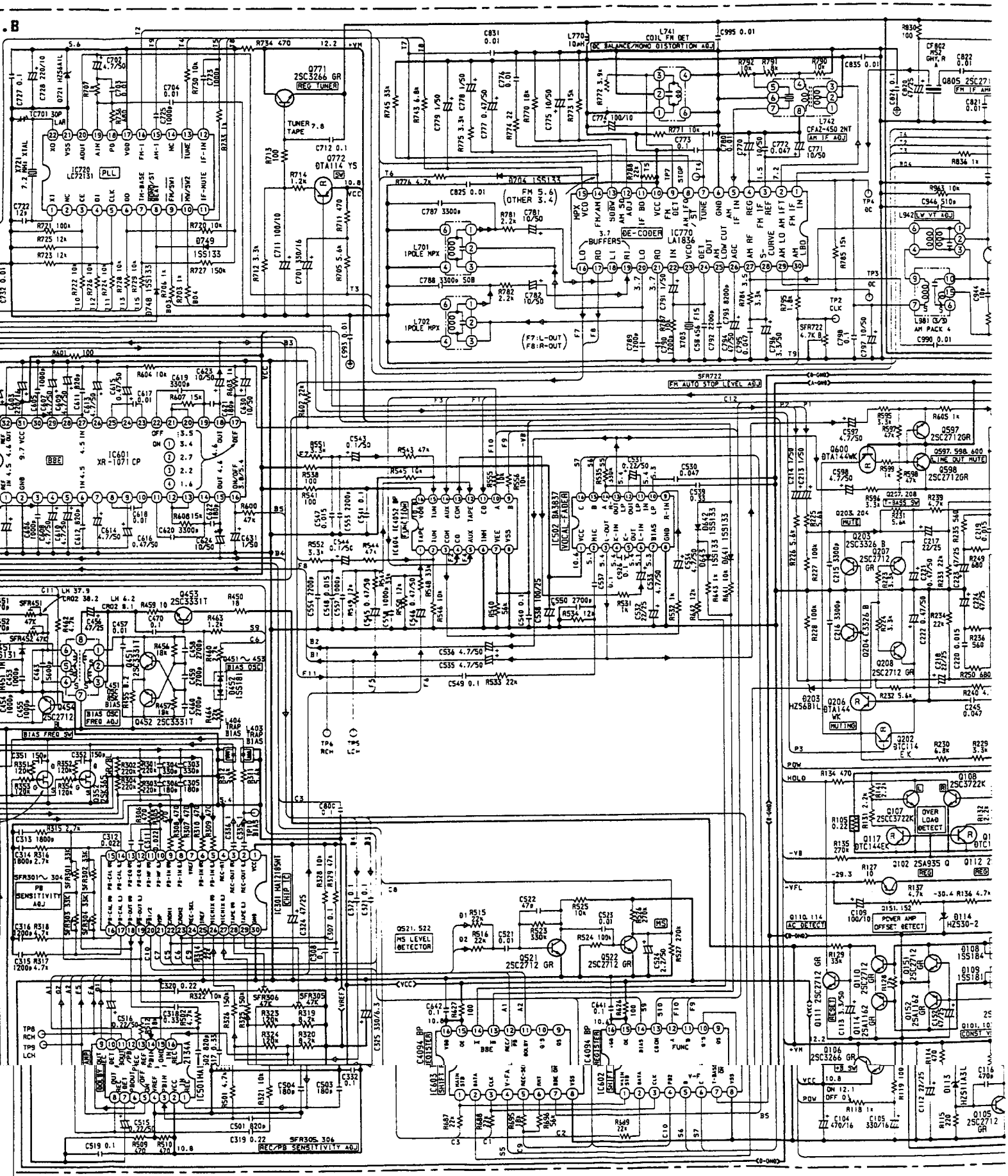
AIN C. B

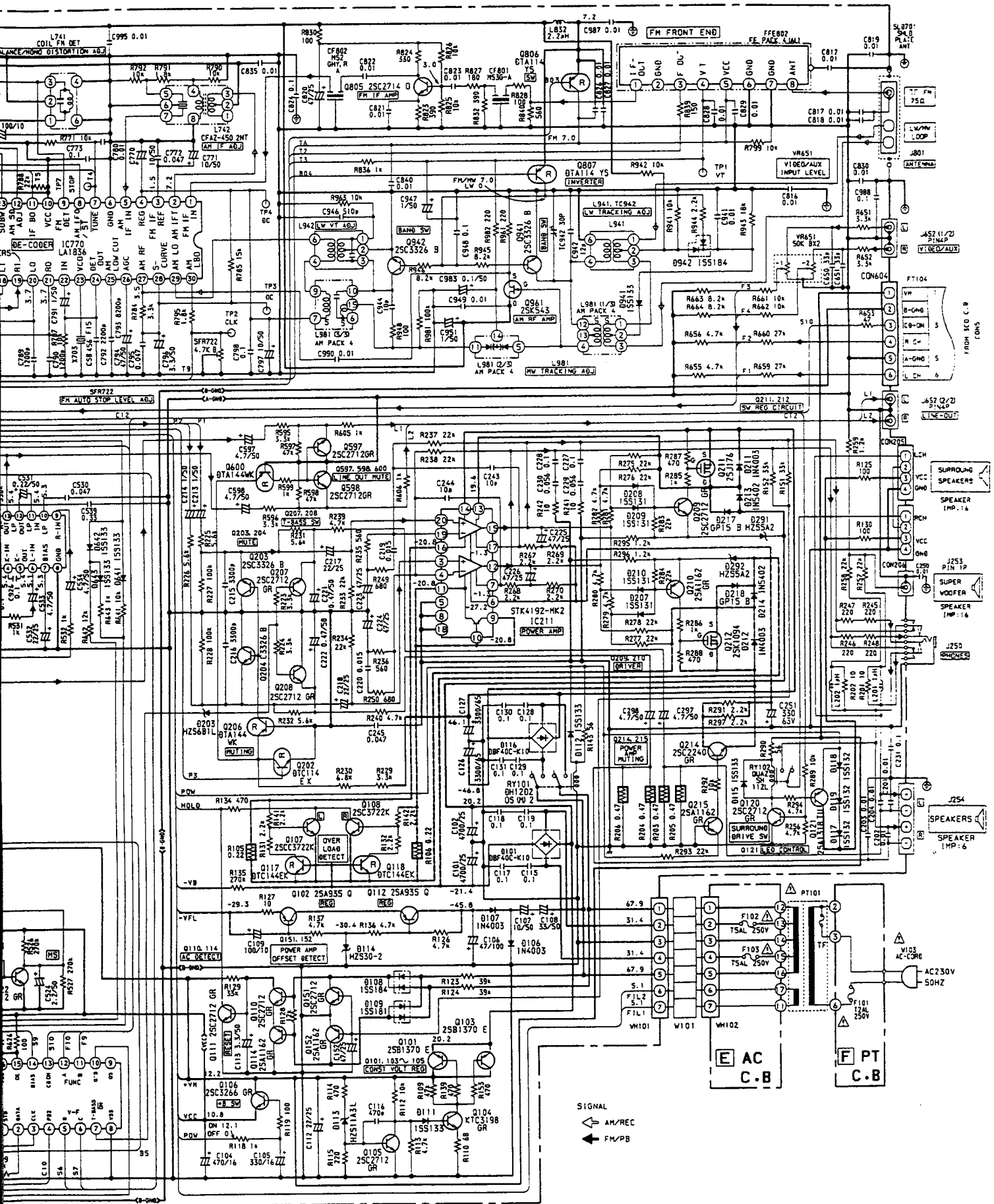
FROM HEAD-2 C.
CON351
3 5 7 8
TO PI



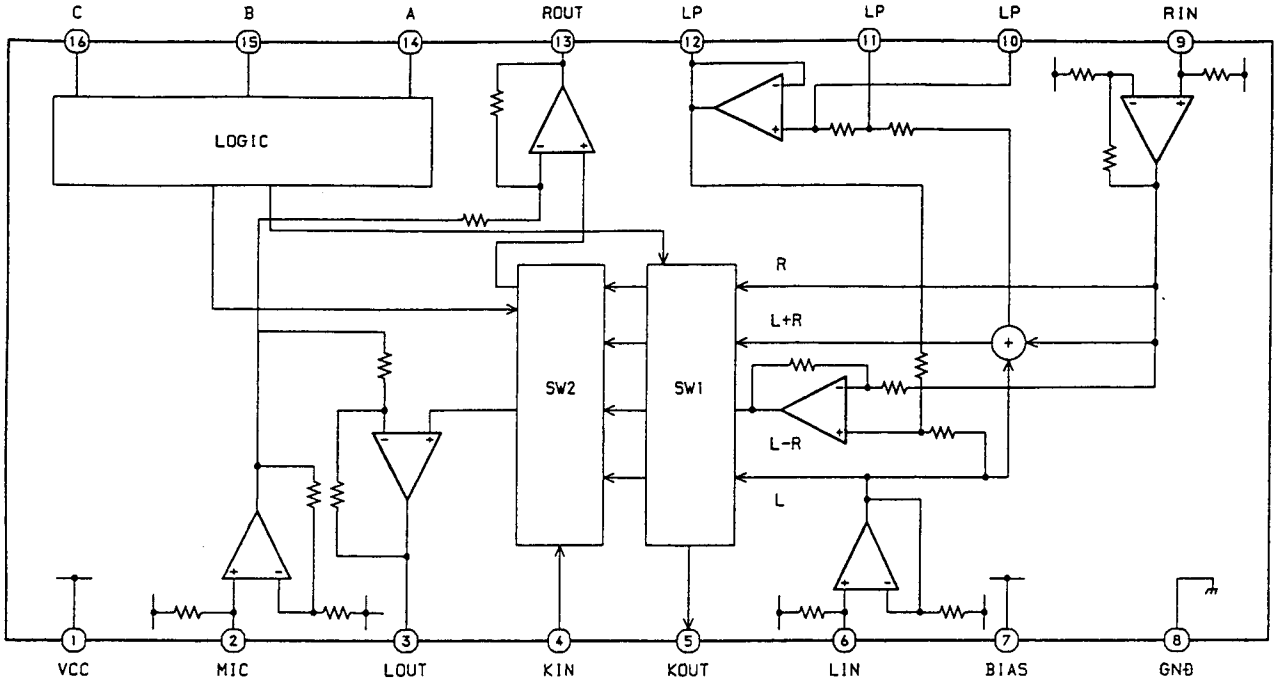

9
10
11
12
13
14
FROM I HEAD-2 C.B
CON351
1 3 5 7 8
TO PIN351
FROM H HEAD-1 C.B
CON301
1 3
TO PIN301
TO B FRONT C.B
PIN101
J250
PHONES


A MAIN C.B
CON601
TC701
CLOCK FREQ ADJ
IC720
LC72131
PLL
IC601
XR-1071 CP
IC502 BA3837
VOCAL FADER
IC604 IC4052 BP
IC603 IC4094 BP
SHIFT REGISTER
IC602 IC4094 BP
SHIFT REGISTER
IC301 HA12185NT
CHIP IC
Q771
2SC3266 GR
REG TUNER
Q772
DTA114 YS
Q453
2SC3331T
Q452 2SC3331T
Q454
2SC2712
Q351
2SK365
GR/BL
Q521 2SC2712 GR
L701
1POLE MPX
L702
1POLE MPX
FM 5.6
(OTHER 3.4)
(F7:L-OUT
F8:R-OUT)
BUFFER
MPX VCO
FM/AM
SUB(L)
LO
RO
LI
TO FRONT C.B
CN101
DECK 2
CON351
DECK 1
CON301
PIN351
PIN301
HEAD-2
C.B
HEAD-1
C.B
AZIMUTH ADJ
REC/PB FREQ RESPONSE ADJ
BIAS OSC FREQ ADJ
BIAS FREQ SW
REC/PB SENSITIVITY ADJ
MS LEVEL DETECTOR
TUNER 7.8
TAPE
VCC
VREF
BIAS OSC
BIAS
TP6 RCH
TP5 LCH
TP8 RCH
TP9 LCH

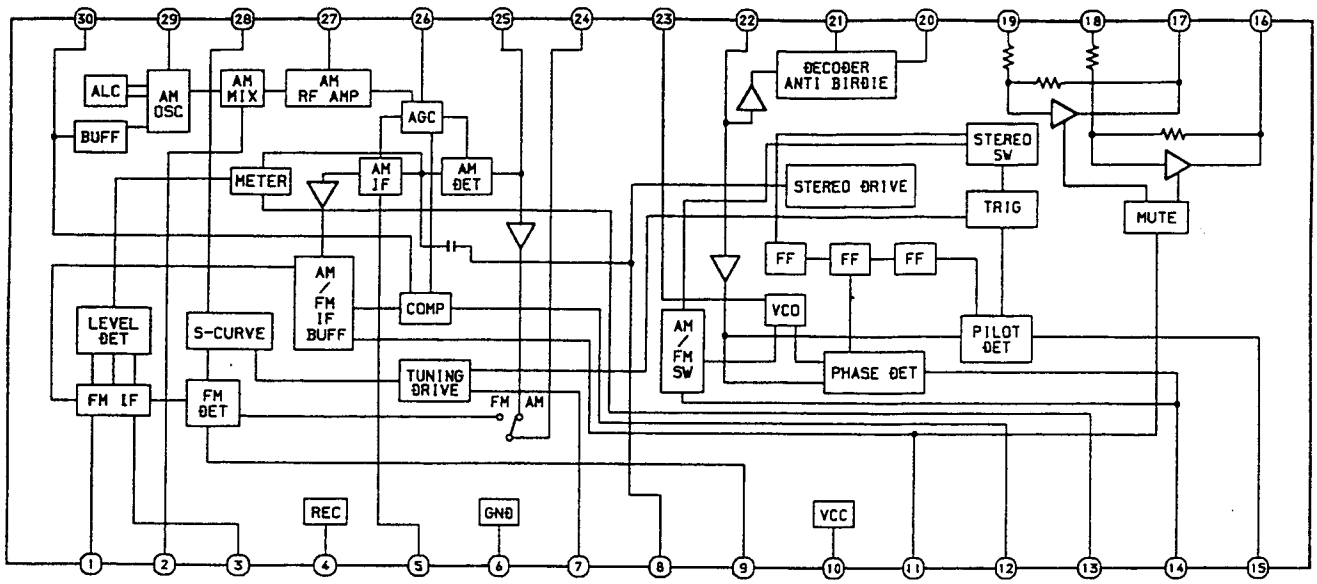


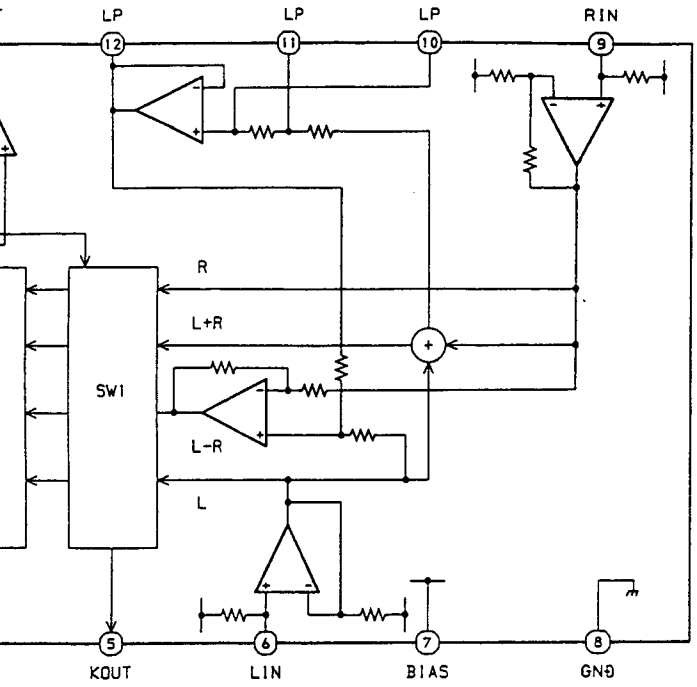

FM FRONT END
FE802
FE PACK (JAL)
Q806 DTA114 YS
Q805 2SC2714 O
FM IF AMP
Q807 DTA114 YS
INVERTER
VR651
VIDEO/AUX INPUT LEVEL
L741 COIL FM DET
L742 CFAZ-450 2NT
AM IF ADJ
IC770 LA1836
DE-EMPHASIS
SFR722
FM AUTO STOP LEVEL ADJ
L941, TC942
LW TRACKING ADJ
L942 LW VT ADJ
Q942 2SC3326 B
Q961 2SK543
AM RF AMP
L981 (1/3) AM PACK 4
L981 MW TRACKING ADJ
Q941 1SS133
0942 1SS184
BAND SW
CON604
FT104
Q211, 212
SW REG CIRCUIT
CON205
CON204
SURROUND SPEAKERS
SUPER WOOFER
SPEAKERS
PHONES
SPEAKER IMP:16
SPEAKER IMP:6
Q600 DTA144WK
Q597, 598, 600
L LINE OUT MUTE
Q598 2SC2712GR
Q597 2SC2712GR
Q203, 204 MUTE
T-BASS SW
Q207, 208
Q203 2SC3326 B
Q207 2SC2712 GR
Q204 2SC3326 B
Q208 2SC2712 GR
Q206 DTA144 WK
MUTING
Q202 DTC114 EK
STK4192-MK2
IC211
POWER AMP
Q209, Z10 DRIVER
Q214, 215 POWER AMP MUTING
Q214 2SC2240 GR
Q215 2SA1162 GR
SURROUND DRIVE SW
Q121 LED CONTROL
RY101 DH1202 DS DU 2
RY102 DUAL 12L
Q108 2SC3722K
Q107 2SC3722K
OVER LOAD DETECT
Q117 DTC144EK
Q118 DTC144EK
Q102 2SA935 Q
Q112 2SA935 Q
REG
Q110, 114 AC DETECT
POWER AMP OFFSET DETECT
Q114 HZS30-2
Q108 1SS184
Q109 1SS181
Q103 2SB1370 E
Q101 2SB1370 E
Q101, 103 105 CONST VOLT REG
Q106 2SC3266 GR
+B SW
Q104 KTC3198 GR
Q105 2SC2712 GR
Q111 1SS133
RESET
PT101
F102 T5AL 250V
F103 T5AL 250V
F101 T2AL 250V
W103 AC-CORD
AC230V 50HZ
WH101
WH102
W101
E AC C.B
F PT C.B
SIGNAL
AM/REC
FM/PB

IC, BA3837

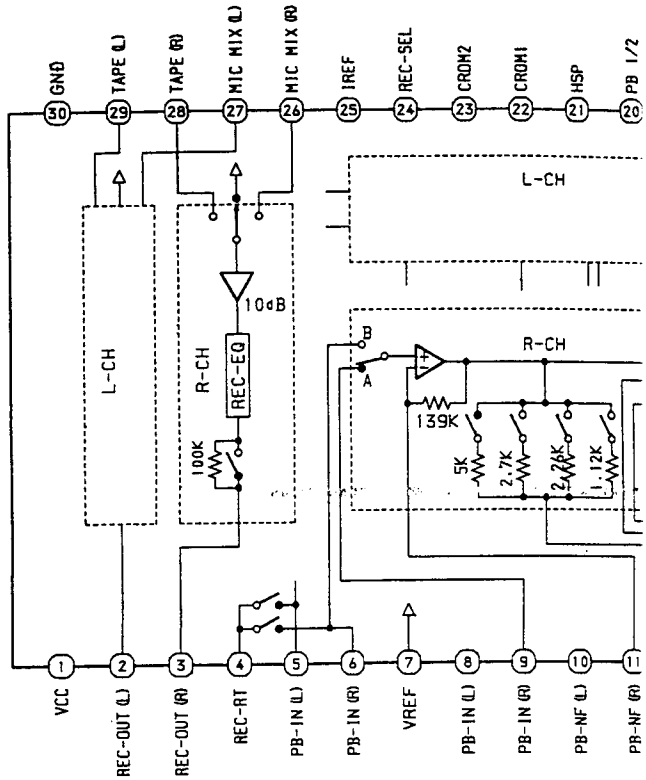


IC, LA1836

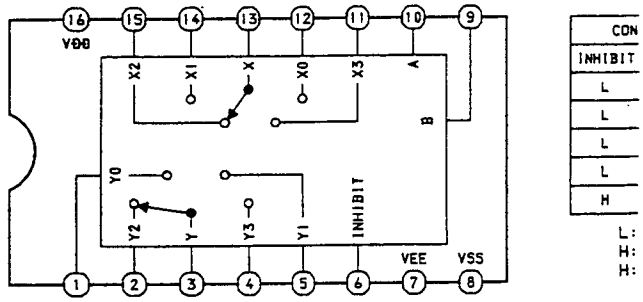


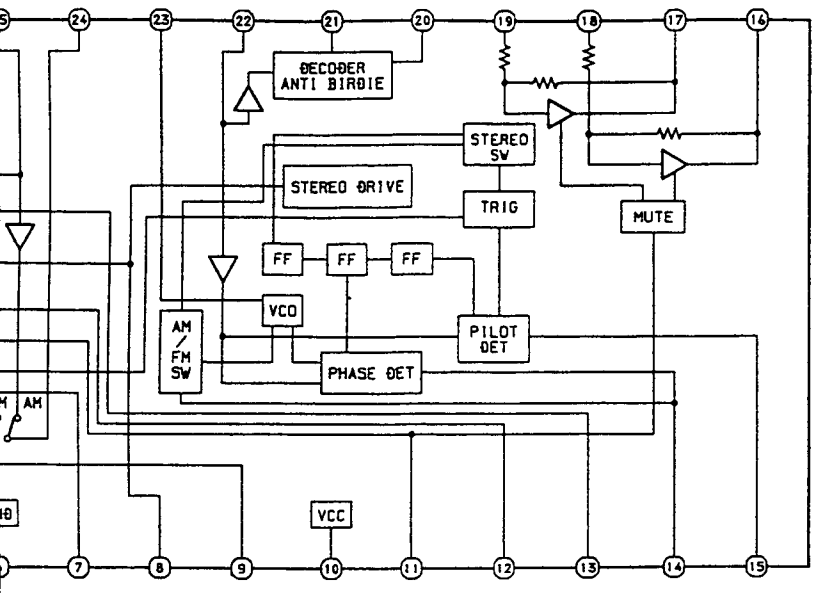


IC, HA12185NT

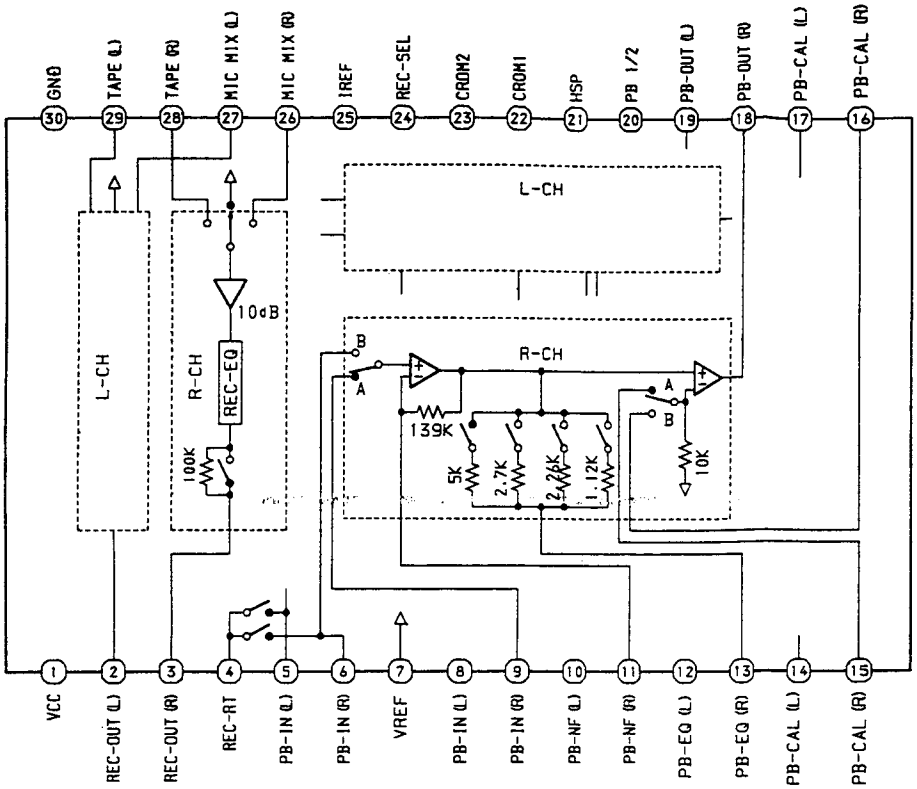


IC, TC4052

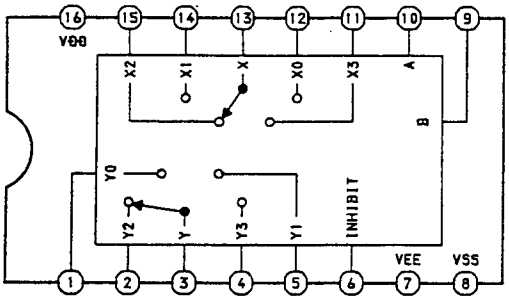




IC, HA12185NT



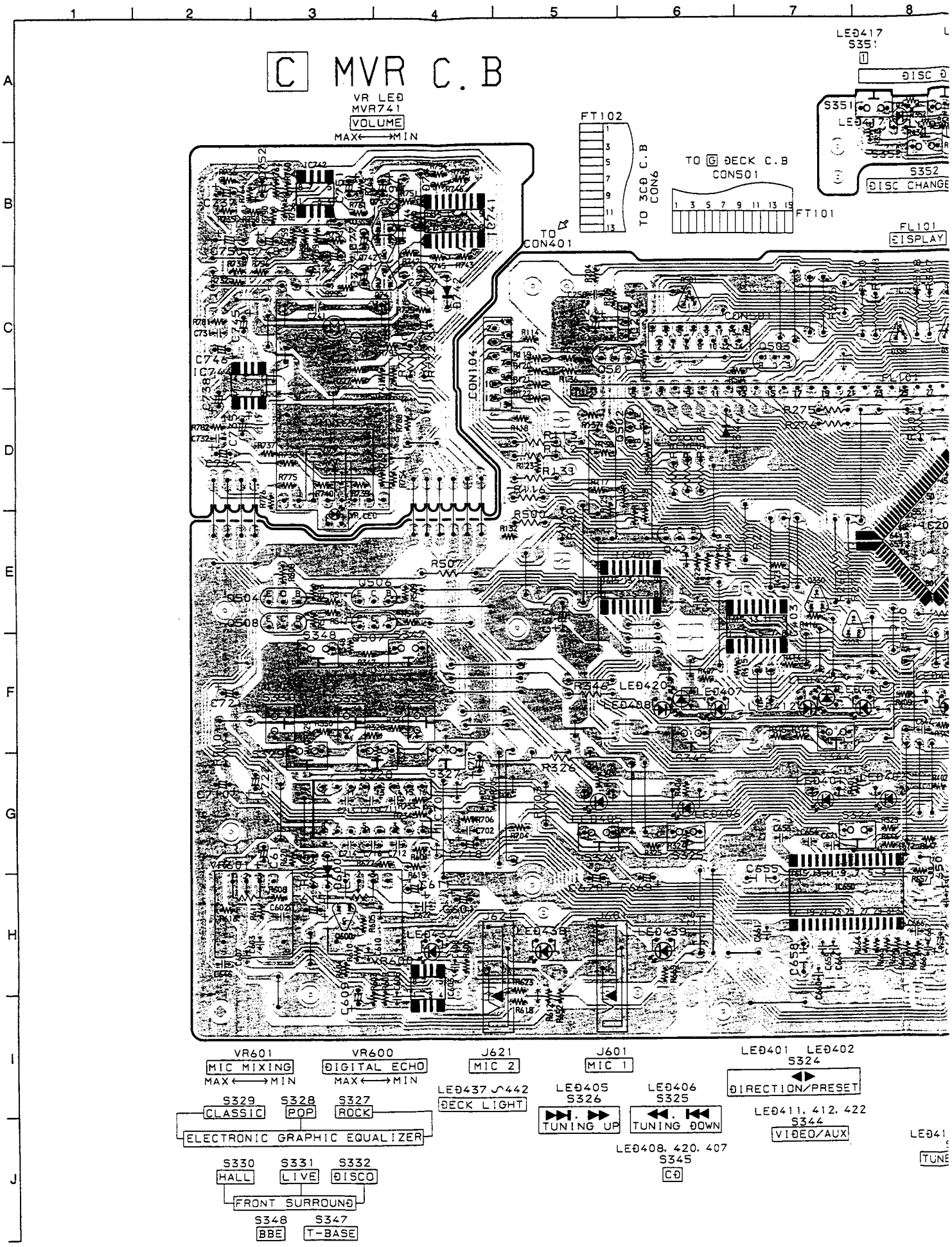
IC, TC4052

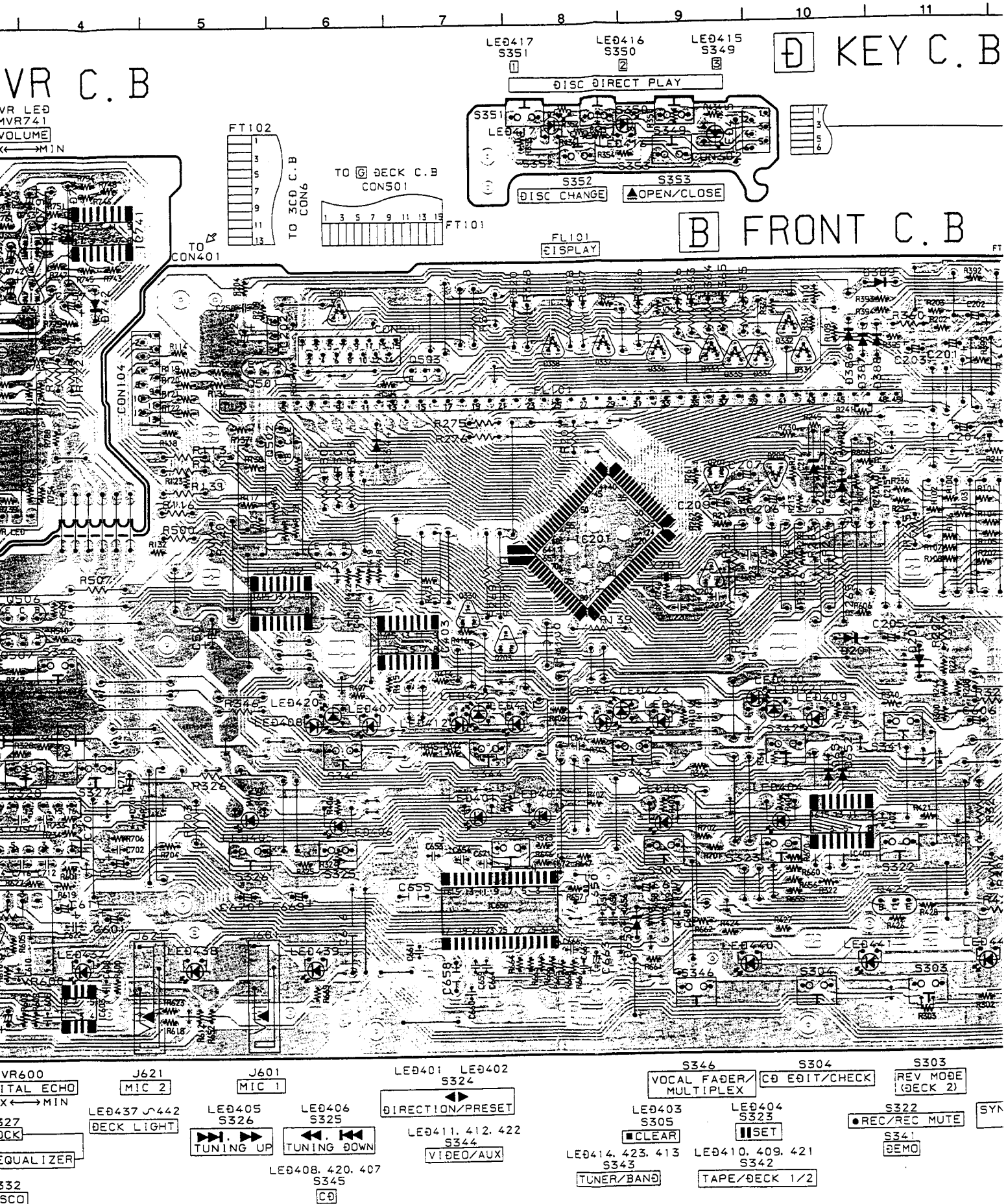


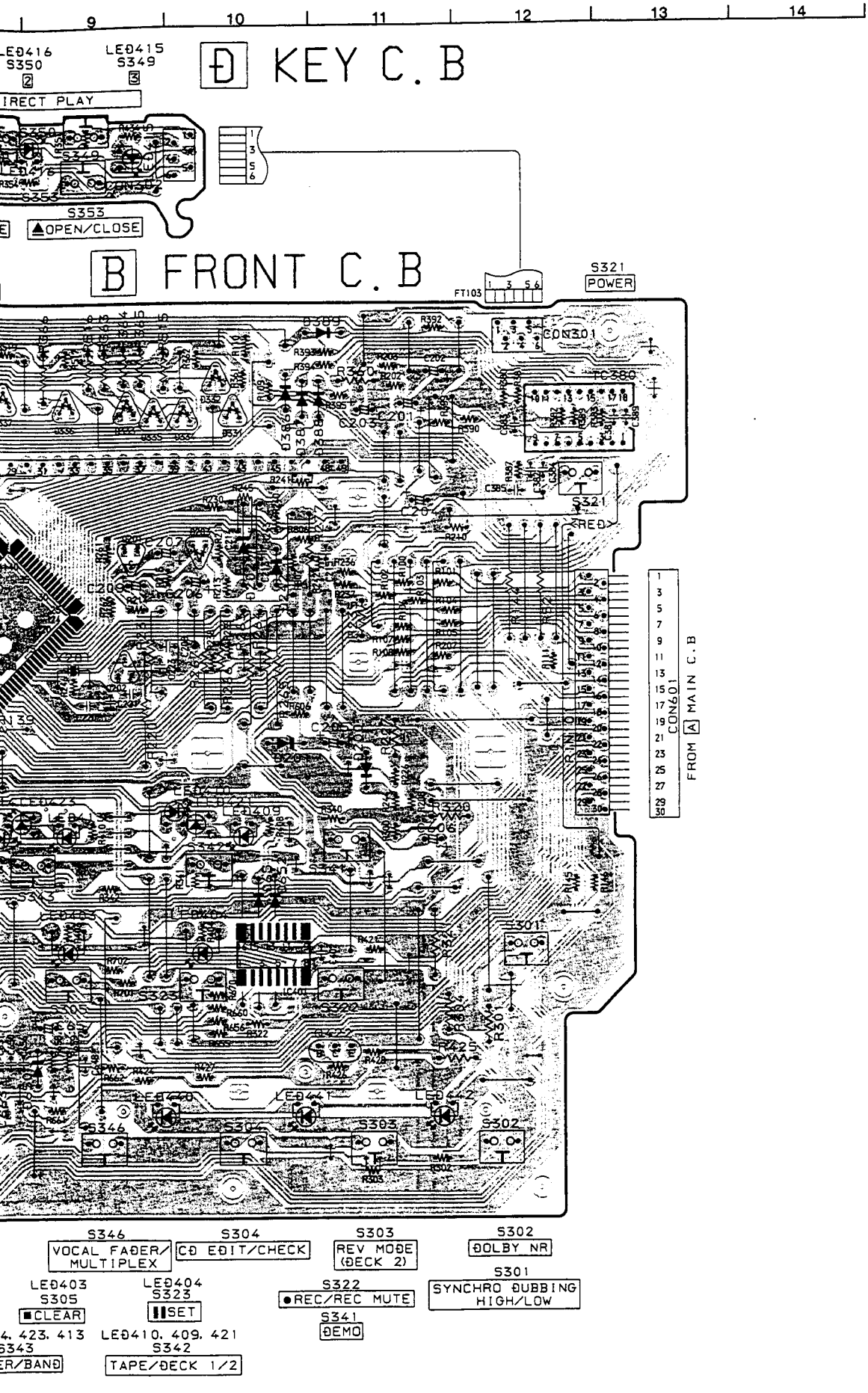
CONTROL INPUTS			ON SWITCH	
INHIBIT	B	A		
L	L	L	Y0	X0
L	L	H	Y1	X1
L	H	L	Y2	X2
L	H	H	Y3	X3
H	X	X	—	—

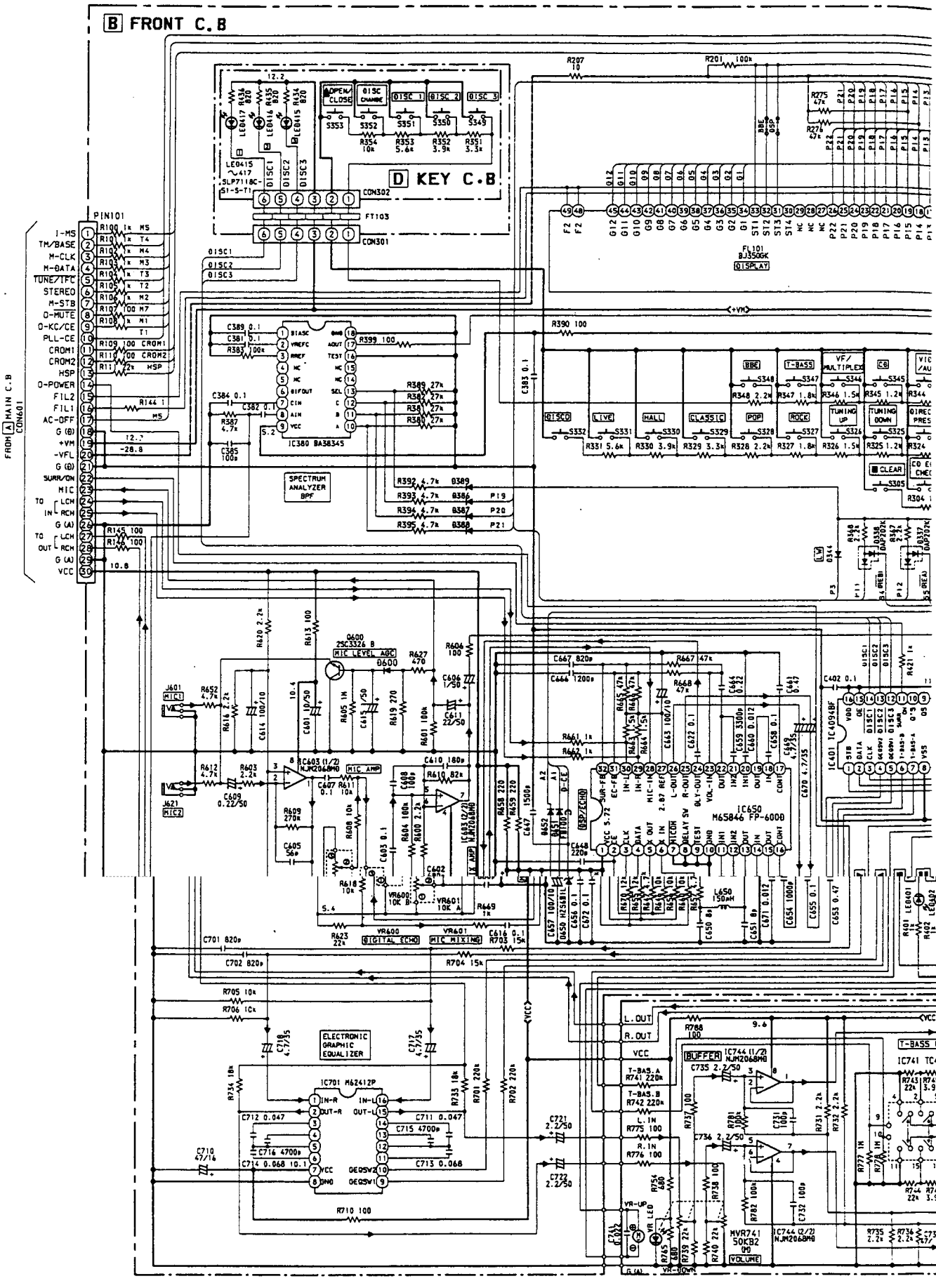
L:LOW LEVEL
H:HIGH LEVEL
H:IRRELEVANT

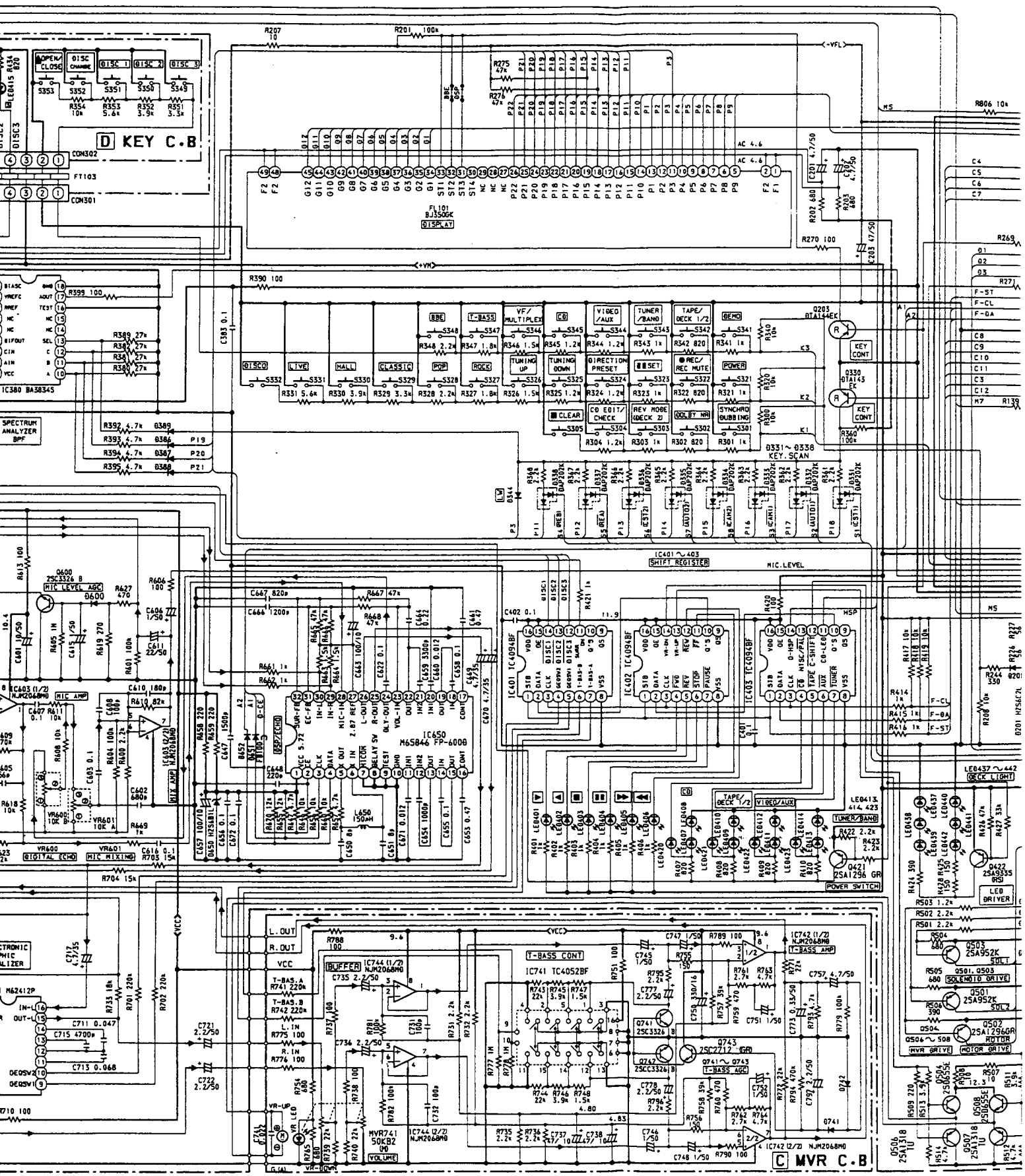
WIRING – 2 (FRONT)

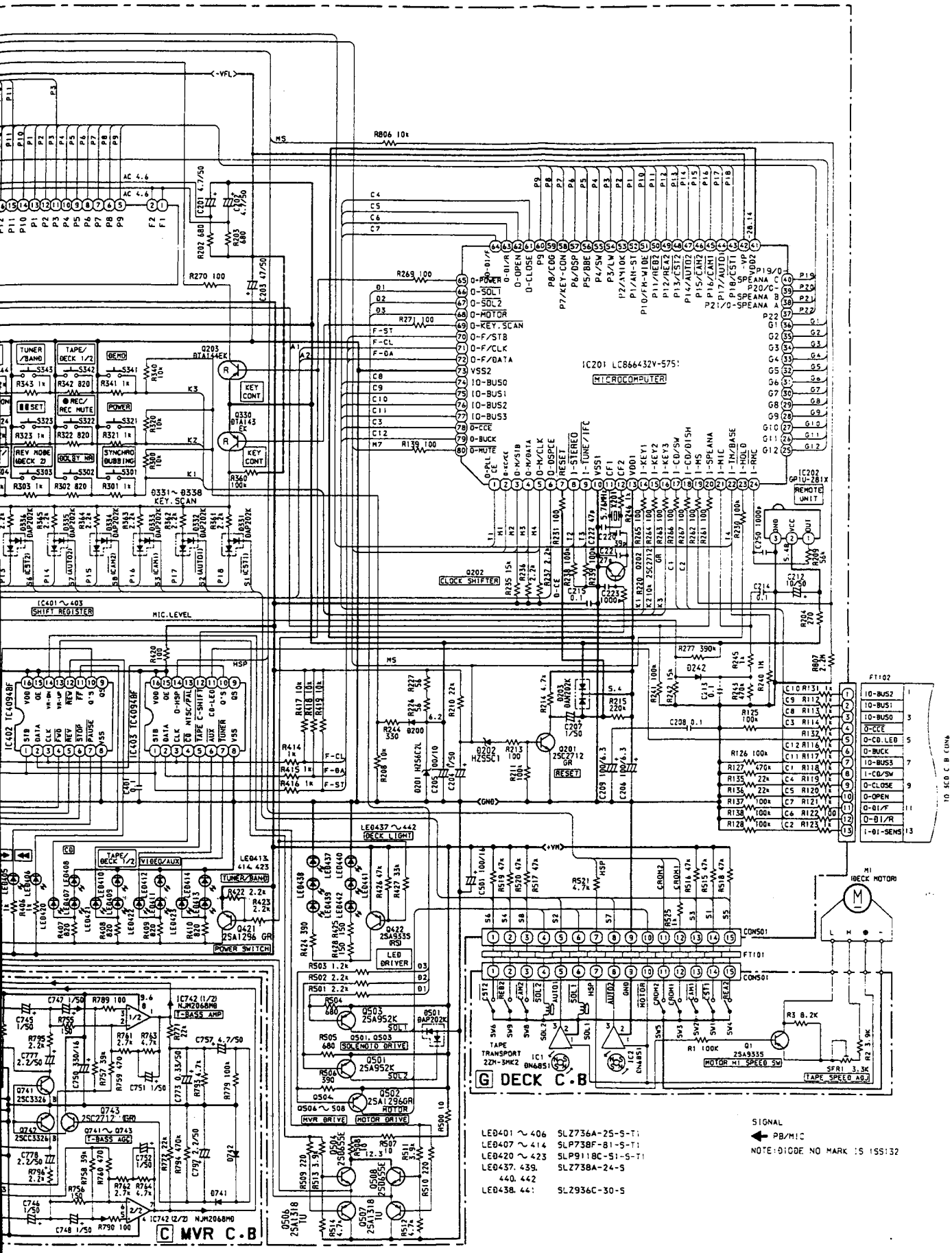


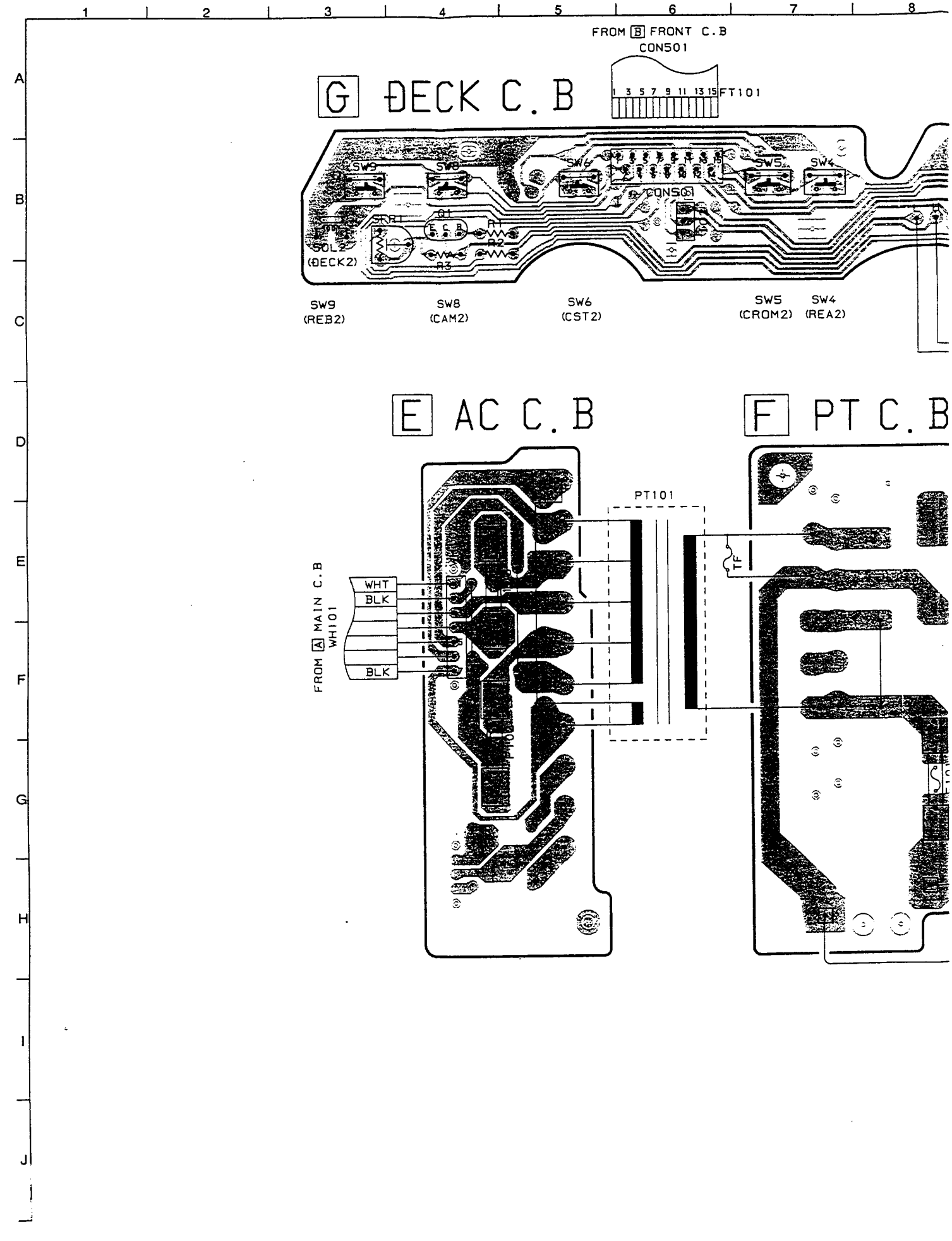

VR C.B
KEY C.B
FRONT C.B
LED417
S351
LED416
S350
LED415
S349
DISC DIRECT PLAY
S352
DISC CHANGE
S353
OPEN/CLOSE
FT102
TO 3CD C.B CON6
TO CD DECK C.B CON501
FT101
TO CON401
FL101
DISPLAY
CON104
VOLUME
MIN
VR LED
MVR741
VR600
DIGITAL ECHO
MIN
J621
MIC 2
J601
MIC 1
LED437 ~442
DECK LIGHT
LED405
S326
TUNING UP
LED406
S325
TUNING DOWN
LED408. 420. 407
S345
CD
LED401 LED402
S324
DIRECTION/PRESET
LED411. 412. 422
S344
VIDEO/AUX
S346
VOCAL FADER/ MULTIPLEX
LED403
S305
CLEAR
LED414. 423. 413
S343
TUNER/BAND
S304
CD EDIT/CHECK
LED404
S323
SET
LED410. 409. 421
S342
TAPE/DECK 1/2
S303
REV MODE (DECK 2)
S322
REC/REC MUTE
S341
DEMO
EQUALIZER

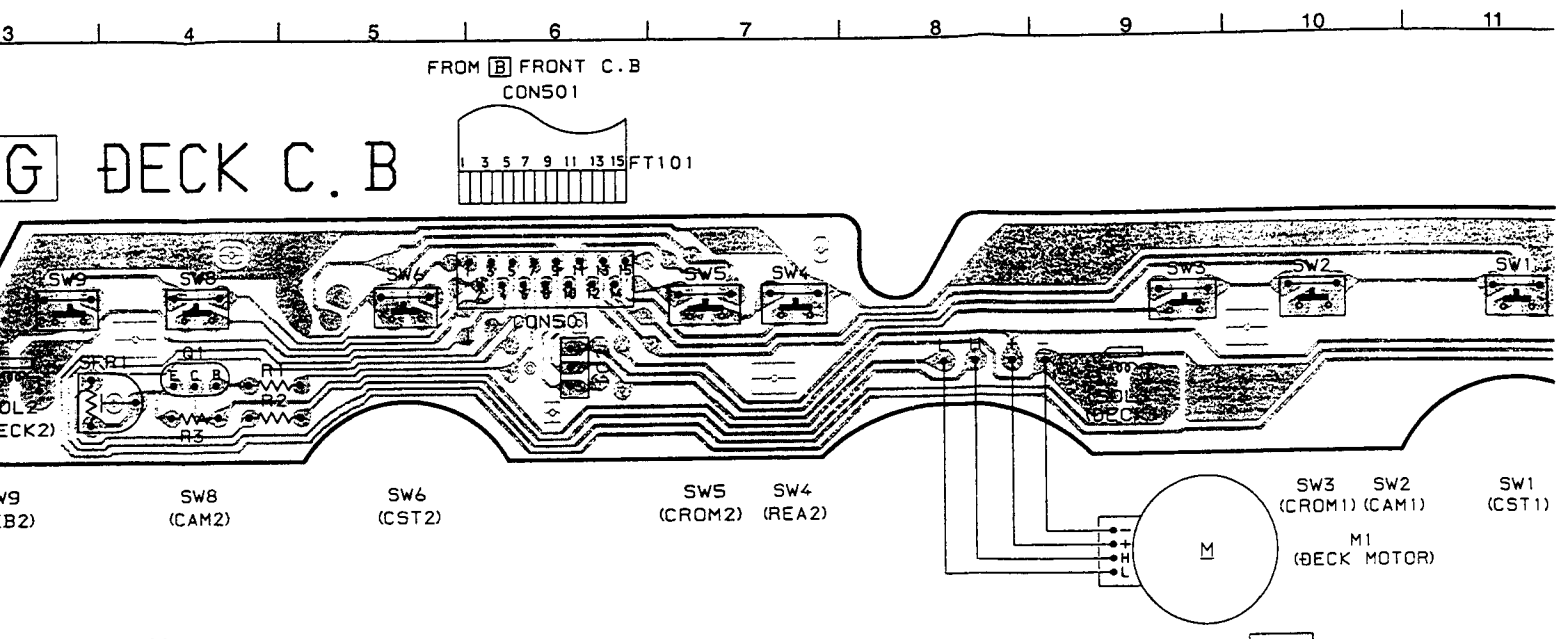

9
10
11
12
13
14
LE0416
S350
LE0415
S349
D KEY C.B
DIRECT PLAY
S353
OPEN/CLOSE
B FRONT C.B
FT103
S321
POWER
CON301
FROM A MAIN C.B
CON601
S346
VOCAL FADER/
MULTIPLEX
S304
CD EDIT/CHECK
S303
REV MODE
(DECK 2)
S302
DOLBY NR
S301
SYNCHRO DUBBING
HIGH/LOW
LE0403
S305
CLEAR
LE0404
S323
SET
S322
REC/REC MUTE
S341
DEMO
LE0410, 409, 421
S342
TAPE/DECK 1/2
S343
ER/BAND

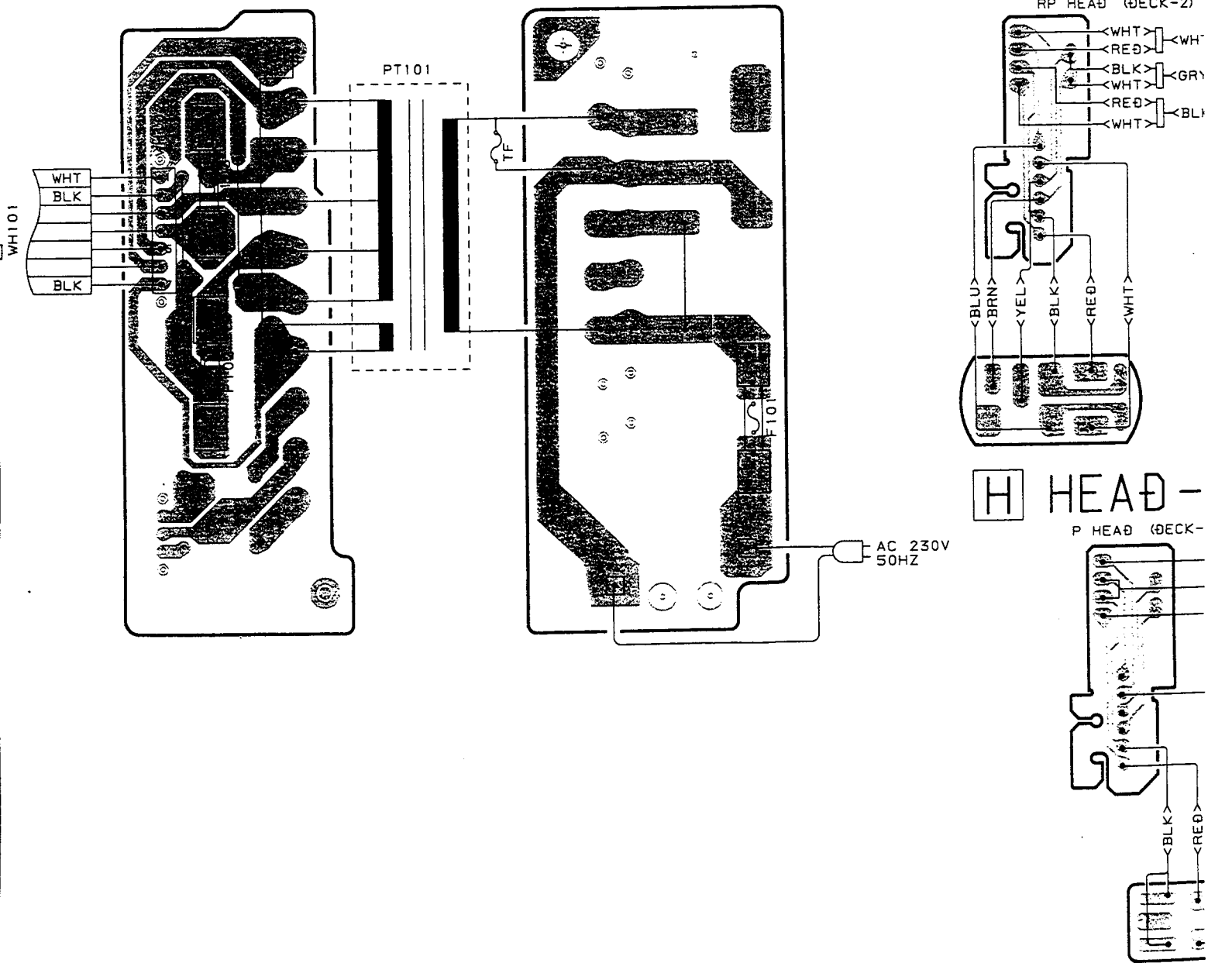

B FRONT C.B
D KEY C.B
CON302
CON301
FT103
FROM A MAIN C.B CON601
PIN101
I-MS
TM/BASE
M-CLK
M-DATA
TUNE/TFC
STEREO
M-STB
D-MUTE
D-KC/CE
PLL-CE
CROM1
CROM2
HSP
D-POWER
FIL2
FIL1
AC-OFF
G (B)
+VM
-VFL
G (B)
SURR/ON
MIC
TO IN LCH RCH
G (A)
TO OUT LCH RCH
G (A)
VCC
IC380 BA38345
SPECTRUM ANALYZER BPF
Q600 2SC3326 B MIC LEVEL AGC
IC601 NJM2068MD MIC AMP
IC603 (1/2) NJM2068MD
IC650 M65846 FP-600B
IC701 M62412P ELECTRONIC GRAPHIC EQUALIZER
IC744 (1/2) NJM2068MD BUFFER
IC744 (2/2) NJM2068MD
MVR741 50KB2 (M) VOLUME
VR600 10K B DIGITAL ECHO
VR601 10K A MIC MIXING
FL101 BJ350GK DISPLAY
DISC CHANGE
OPEN/CLOSE
DISC 1
DISC 2
DISC 3
CLEAR
DISCO
LIVE
HALL
CLASSIC
POP
ROCK
TUNING UP
TUNING DOWN
T-BASS
BBE
CB
VF/ MULTIPLEX
L.OUT
R.OUT
VCC
T-BAS.A
T-BAS.B
L.IN
R.IN
VR-UP
VR-DOWN
VR LED

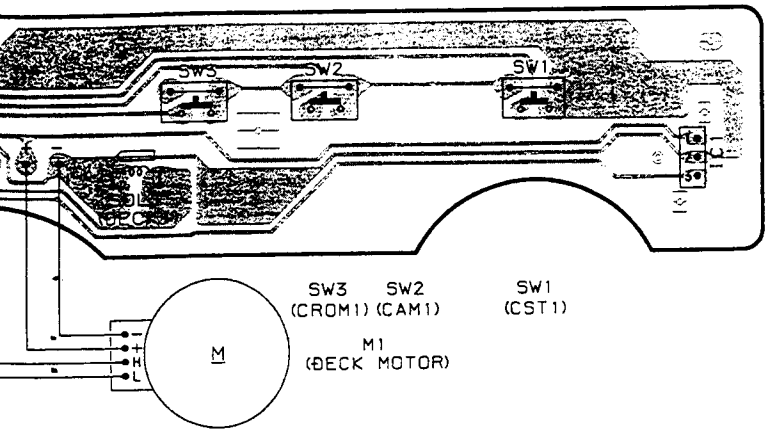

D KEY C.B
CON302
CON301
FT103
FL101
BJ350DK
DISPLAY
IC380 BA3834S
SPECTRUM ANALYZER BPF
IC401 ~ 403
SHIFT REGISTER
MIC.LEVEL
IC650
M65846 FP-6000
IC401 TC4094BF
IC402 TC4094BF
IC403 TC4094BF
IC741 TC4052BF
T-BASS CONT
C MVR C.B
POWER SWITCH
MOTOR DRIVE
SOLENOID DRIVE
DECK LIGHT
VOLUME
MIC MIXING
DIGITAL ECHO
MIC AMP
MIC LEVEL AGC
T-BASS AMP
BUFFER


IC201 LC866432V-575
MICROCOMPUTER
IC202 GP1U-281X
REMOTE UNIT
Q202 CLOCK SHIFTER
IC401 ~ 403 SHIFT REGISTER
MIC.LEVEL
KEY SCAN
IC402 TC4094BF
IC403 TC4094BF
Q203 RTA144EK
Q330 DTA143 EK
KEY CONT
TUNER /BAND
TAPE/ DECK 1/2
DEMO
REC/ REC MUTE
POWER
SET
REV MODE (DECK 2)
DOLBY NR
SYNCHRO DUBBING
Q201 2SC2712 GR
RESET
Q421 2SA1296 GR
POWER SWITCH
LED DRIVER
SOLENOID DRIVE
MOTOR DRIVE
MVR DRIVE
IC742 (1/2) NJM2068M0
T-BASS AMP
IC742 (2/2) NJM2068M0
T-BASS AGC
C MVR C.B
G DECK C.B
DECK MOTOR
TAPE TRANSPORT 2ZM-3MK2
IC1 BN6851
IC2 BN6851
MOTOR M1 SPEED SW
TAPE SPEED ADJ
CONS01
FT101
FT102
TO SCD C.B CON4
LED0401 ~ 406 SLZ736A-25-S-T1
LED0407 ~ 414 SLP738F-81-S-T1
LED0420 ~ 423 SLP9118C-51-S-T1
LED0437. 439. 440. 442 SLZ738A-24-S
LED0438. 441 SLZ936C-30-S
SIGNAL
PB/MIC
NOTE:DIODE NO MARK IS 1SS132


FROM B FRONT C.B
CON501
1 3 5 7 9 11 13 15 FT101
G DECK C.B
SW9
SW8
SW6
SW5
SW4
CON502
SOL2
(DECK2)
R1
R2
R3
Q1
SW9
(REB2)
SW8
(CAM2)
SW6
(CST2)
SW5
(CROM2)
SW4
(REA2)
E AC C.B
F PT C.B
PT101
FROM A MAIN C.B
WH101
WHT
BLK
BLK
TF

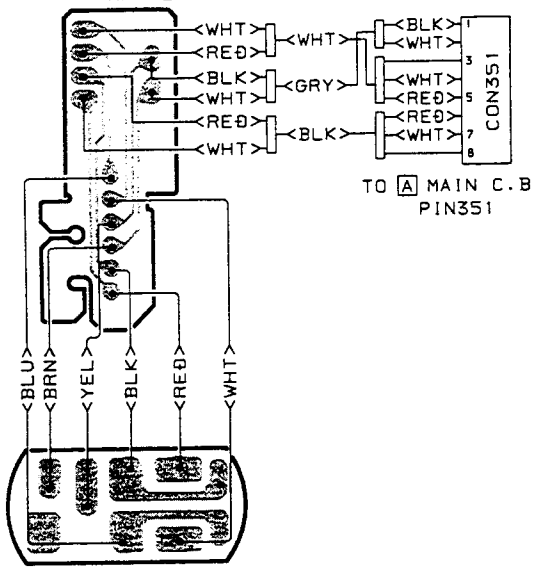

3 4 5 6 7 8 9 10 11
FROM B FRONT C.B
CON501
G ÐECK C.B
1 3 5 7 9 11 13 15 FT101
SW9
SW8
SW6
SW5
SW4
SW3
SW2
SW1
CON501
SW9
(B2)
SW8
(CAM2)
SW6
(CST2)
SW5
(CROM2)
SW4
(REA2)
SW3
(CROM1)
SW2
(CAM1)
SW1
(CST1)
M
M1
(ÐECK MOTOR)


E AC C.B
F PT C.B
I HEAÐ -
RP HEAÐ (ÐECK-2)
PT101
WHT
BLK
BLK
WH101
TF
F101
AC 230V
50HZ
WHT
REÐ
BLK
WHT
REÐ
WHT
BLU
BRN
YEL
BLK
REÐ
WHT
H HEAÐ -
P HEAÐ (ÐECK-
BLK
REÐ



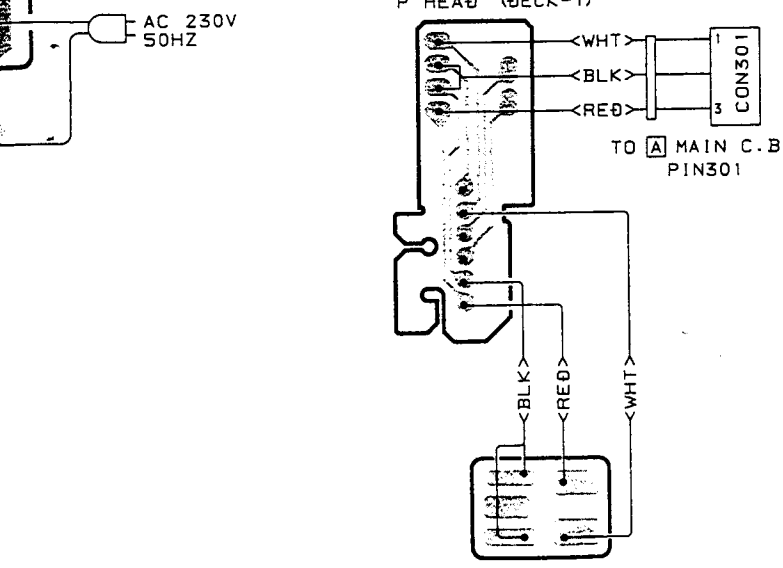
I HEAD-2 C.B

RP HEAD (DECK-2)



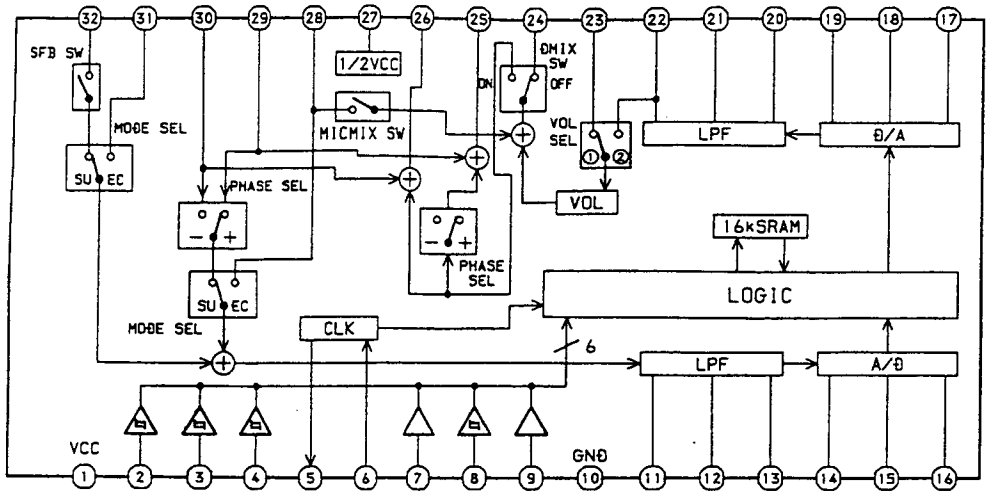
H HEAD-1 C.B

P HEAD (DECK-1)

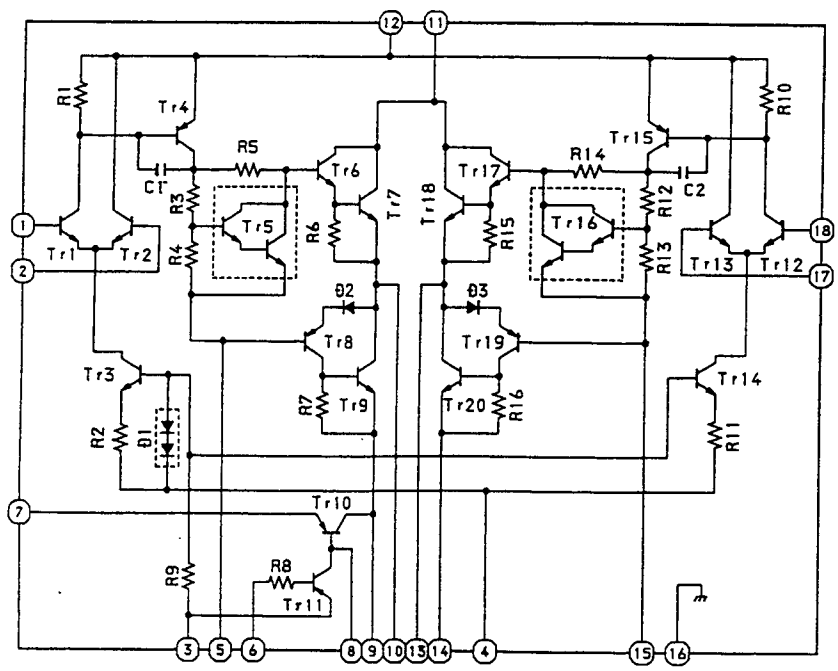


IC BLOCK DIAGRAM – 2

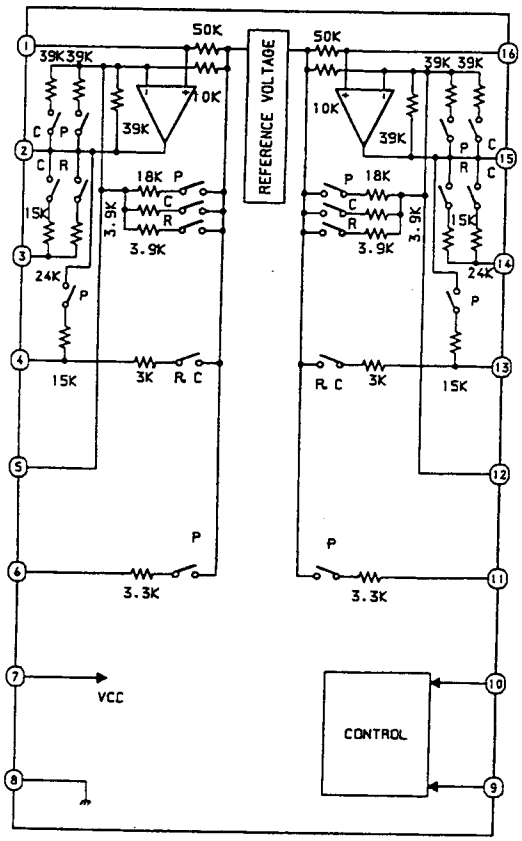
IC, M65846FP–600D



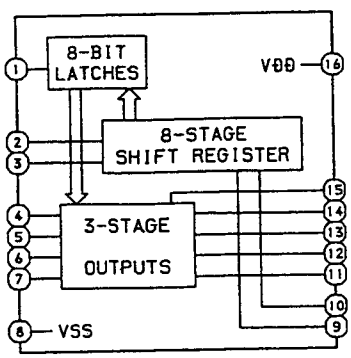
IC, STK4192–MK2



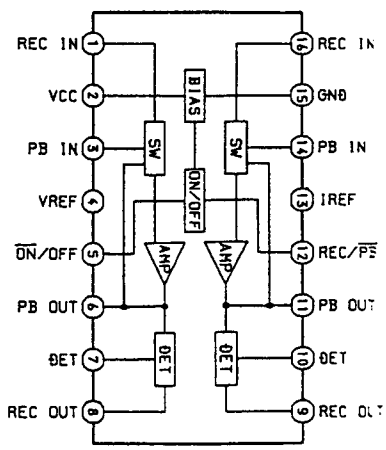
IC, M62412P



IC, TC4094BP



IC, HA12134A



IC DESCRIPTION

IC, LC72131

<table>
<tr><th>Pin No.</th><th>Pin Name</th><th>I/O</th><th>Description</th></tr>
<tr><td>1</td><td>XI</td><td>–</td><td rowspan="2">A crystal oscillator (7.2MHz) is connected between these pins.</td></tr>
<tr><td>22</td><td>XO</td><td>–</td></tr>
<tr><td>2</td><td>NC</td><td>–</td><td>Not used.</td></tr>
<tr><td>3</td><td>CE</td><td>I</td><td>To enable the IC. Active "H".</td></tr>
<tr><td>4</td><td>DI</td><td>I</td><td>Digital data input from CPU (LC866432V–5751) when relevant key is operated. Active "H".</td></tr>
<tr><td>5</td><td>CLK</td><td>I</td><td>To clock in the data DI.</td></tr>
<tr><td>6</td><td>DO</td><td>O</td><td>Digital data output to CPU (LC866432V–5751).</td></tr>
<tr><td>7</td><td>TM-BASE</td><td>O</td><td>Outputs a reference clock signal (8Hz) for the clock.</td></tr>
<tr><td>8</td><td>$\overline{\text{MONO}}$/ST BEAT</td><td>O</td><td>Outputs "H" when MONO/ST BEAT is switched.</td></tr>
<tr><td>9</td><td>$\overline{\text{FM/SW1}}$</td><td>O</td><td>Output "L" or "H" as follows:
<table>
<tr><th colspan="2">2 BAND</th><th colspan="3">3 BAND</th><th colspan="4">4 BAND</th></tr>
<tr><th>AM</th><th>FM</th><th>LW</th><th>MW</th><th>FM</th><th>LW</th><th>SW1</th><th>SW2</th><th>FM</th></tr>
<tr><td>H</td><td>L</td><td>H</td><td>H</td><td>L</td><td>H</td><td>L</td><td>H</td><td>L</td></tr>
</table></td></tr>
<tr><td>10</td><td>$\overline{\text{MW/SW2}}$</td><td>O</td><td>Outputs "L" or "H" as follows:
<table>
<tr><th colspan="2">2 BAND</th><th colspan="3">3 BAND</th><th colspan="4">4 BAND</th></tr>
<tr><th>AM</th><th>FM</th><th>LW</th><th>MW</th><th>FM</th><th>LW</th><th>SW1</th><th>SW2</th><th>FM</th></tr>
<tr><td>L</td><td>L</td><td>H</td><td>L</td><td>L</td><td>H</td><td>H</td><td>L</td><td>L</td></tr>
</table></td></tr>
<tr><td>11</td><td>$\overline{\text{IF-MUTE}}$</td><td>O</td><td>To control internal counter.</td></tr>
<tr><td>12</td><td>IFIN</td><td>I</td><td>General purpose counter input.</td></tr>
<tr><td>13</td><td>$\overline{\text{TUNE}}$</td><td>I</td><td>Receives "L" when station is tuned.</td></tr>
<tr><td>14</td><td>NC</td><td>–</td><td>Not used.</td></tr>
<tr><td>15</td><td>AM-I</td><td>I</td><td>Receives the AM local oscillator frequency signal.</td></tr>
<tr><td>16</td><td>FM-I</td><td>I</td><td>Receives the FM local oscillator frequency signal.</td></tr>
<tr><td>17</td><td>VDD</td><td>–</td><td>Supply power to IC (+5V).</td></tr>
<tr><td>18</td><td>PD</td><td>O</td><td>PLL charge pump output.</td></tr>
<tr><td>19</td><td>AIN</td><td>I</td><td rowspan="2">Nch MOS transistor for PLL active low pass filter.</td></tr>
<tr><td>20</td><td>AOUT</td><td>O</td></tr>
<tr><td>21</td><td>VSS</td><td>–</td><td>Ground.</td></tr>
</table>

IC, BA3834S

Pin No.	Pin Name	I/O	Description
1	BIASC	–	Decoupling capacitor for linear VREF connecting terminal.
2	VREFC	–	Decoupling capacitor for logic VREF connecting terminal.
3	RREF	–	Reference resistor for setting band pass filter for connecting terminal.
4, 5	NC	–	Not used.
6	DIFOUT	O	Differential amplifier output terminal.
7	CIN	I	Differential amplifier input terminal 2.
8	AIN	I	Differencial amplifier input terminal 1.
9	VCC	–	Nominally 5V.
10	A	O	Output selection control terminals (see table – 1).
11	B		
12	C		
13	SEL		
14, 15	NC	–	Not used.
16	TEST	–	Connected to ground.
17	A-OUT	O	Multiplexer output terminal.
18	GND	–	Ground.

Table – 1. Filter Select Table

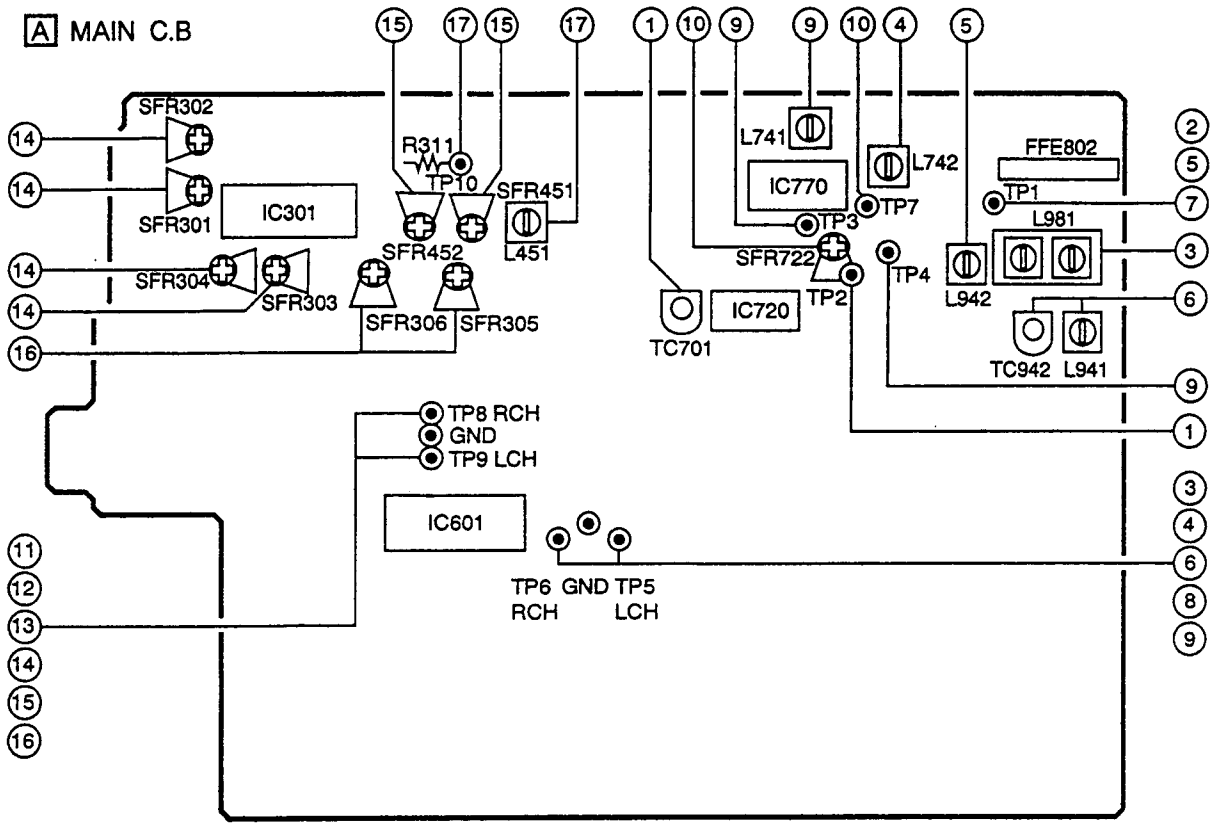
SEL	A	B	C	AOUT
0	X	X	X	GND
1	0	0	0	GND
1	0	0	1	68Hz
1	0	1	0	170Hz
1	0	1	1	420Hz
1	1	0	0	1kHz
1	1	0	1	2.4kHz
1	1	1	0	5.9kHz
1	1	1	1	14.4kHz

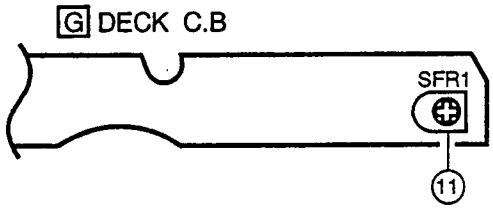
IC, LC866432V–5751

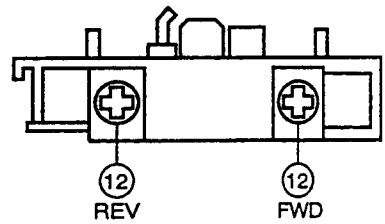
Pin No.	Pin Name	I/O	Description
1	O-PLL CE	O	PLL IC chip enable.
2	O-KC/CE	O	Key control IC M65840FP data latched strobe output.
3	O-M/STB	O	Main shift register (IC602, 603) data latch strobe output.
4	O-M/DATA	O	Main shift register (IC602, 603), PLL/key control/DSP related data output.
5	O-M/CLK	O	Main shift register (IC 602, 603), PLL/key control/DSP related clock output.
6	O-DSPCE	O	DSP data latch strobe output.
7	$\overline{\text{RESET}}$	I	Reset input.
8	I-$\overline{\text{STEREO}}$	I	Tuner stereo detected input.
9	I-$\overline{\text{TUNE/IFC}}$	I	Tuner $\overline{\text{SD}}$ detected input. IF count serial data input.
10	VSS1	–	GND.
11, 12	CF1, 2	–	5.76MHz oscillator circuit.
13	VDD1	–	Power supply input.
14 ~ 16	I-KEY1 ~ 3	I	Key input. (A/D)
17	I-CD/SW	I	CD mechanical switch A/D converter input.
18	I-CD/DISH	I	CD turntable photo sensor A/D converter input.
19	I-MS	I	Deck music sensor signal input.
20	I-SPEANA	I	A/D input for spectrum analyzer display.
21	I-MC	I	Microphone input for auto VF display.
22	I-TM BASE	I	Reference clock input for timer watch.
23	I-$\overline{\text{HOLD}}$	I	Power failure detected input. "L" to stop clock and maintain memory.
24	I-$\overline{\text{RMC}}$	I	System remote control signal input.
25 ~ 36	G12 ~ G1	O	FL grid output G12 ~ G1.
37	P22	O	FL segment output P22.
38	P21/O-SPEANA A	O	FL segment output P21, spectrum analyzer band switch output (A).
39	P20/O-SPEANA B	O	FL segment output P20, spectrum analyzer band switch output (B).
40	P19/O-SPEANA C	O	FL segment output P19, spectrum analyzer band switch output (C).
41	VDD2	–	Power supply input.
42	–VP	–	Power supply input (–34.5V) for FL display.
43	P18/$\overline{\text{CST1}}$	O / I	FL segment output P18, DECK1 cassette detect switch data input.
44	P17/$\overline{\text{AUTO1}}$	O / I	FL segment output P17, DECK1 auto stop signal input.
45	P16/$\overline{\text{CAM1}}$	O / I	FL segment output P16, DECK1 cam switch data input.
46	P15/$\overline{\text{CAM2}}$	O / I	FL segment output P15, DECK2 cam switch data input.
47	P14/$\overline{\text{AUTO2}}$	O / I	FL segment output P14, DECK2 auto stop signal input.
48	P13/$\overline{\text{CST2}}$	O / I	FL segment output P13, DECK2 cassette detect switch data input.
49	P12/REA2	O / I	FL segment output P12, DECK2 side-A record OK switch data input.
50	P11/REB2	O / I	FL segment output P11, DECK2 side-B record OK switch data input.
51	P10/FM-WIDE	O / I	FL segment output P10, FM wide mode data input to diode.
52	P1/AM-ST	O / I	FL segment output P1, AM stereo mode data input to diode.
53	P2/AM10K	O / I	FL segment output P2, AM 10kHz step data input to diode.
54	P3/LW	O / I	FL segment output P3, LW mode data input to diode.

Pin No.	Pin Name	I/O	Description
55	P4/SW	O / I	FL segment output P4, SW mode data input to diode.
56	P5/BBE	O / I	FL segment output P5, BBE mode data input to diode.
57	P6/DSP	O / I	FL segment output P6, DSP data input to diode.
58	P7/KEY-CON	O / I	FL segment output P7, key control data input to diode.
59	P8/CDG	O / I	FL segment output P8, CDG data input to diode.
60	P9	O	FL segment output P9.
61	O-CLOSE	O	CD tray close data output.
62	O-OPEN	O	CD tray open data output.
63	O-DI/R	O	CD turntable reverse rotation output.
64	O-DI/F	O	CD turntable forward rotation output.
65	O-$\overline{\text{POWER}}$	O	System power supply $\overline{\text{ON}}$/OFF output.
66	O-$\overline{\text{SOL1}}$	O	DECK1 solenoid output.
67	O-$\overline{\text{SOL2}}$	O	DECK2 solenoid output.
68	O-$\overline{\text{MOTOR}}$	O	DECK motor output.
69	O-$\overline{\text{KEY. SCAN}}$	O	Switch scan timing output.
70	O-F/STB	O	Front shift register (IC401 ~ 403), data latch strobe output.
71	O-F/CLK	O	Front shift register (IC401 ~ 403), data transfer clock output.
72	O-F/DATA	O	Front shift register (IC401 ~ 403), data output.
73	VSS2	–	GND.
74 ~ 77	IO-BUS0 ~ 3	I / O	CD IC control data bus input/output.
78	O-$\overline{\text{CCE}}$	O	CD IC control chip enable output.
79	O-BUCK	O	CD IC control data bus clock output.
80	O-$\overline{\text{MUTE}}$	O	System mute output.

ADJUSTMENT – 1 <TUNER / DECK>







< TUNER SECTION >

1. Clock Frequency Adjustment
   Settings : • Test point : TP2 (CLK IC770 pin30)
   • Adjustment location : TC701
   Method : Set to MW 1602kHz and adjust TC701 so that the test point becomes 2052kHz ± 0.01kHz.

2. MW VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to MW 1602kHz and check that the test point is 6.8V ± 1.0V .

3. MW Tracking Adjustment
   Settings : • Test point : TP5, TP6
   • Ajustment location : L981
   Method : Set to MW 999kHz and adjust L981 so that the test point becomes maximum.

4. AM IF Adjustment
   Settings : • Test point : TP5, TP6
   L742 ..... 450kHz

5. LW VT Adjustment
   Settings : • Test point : TP1 (VT)
   • Ajustment location : L942
   Method : Set to LW 144kHz and adjust L942 so that the test point becomes 1.5V ± 0.05V.

6. LW Tracking Adjustment
   Settings : • Test point : TP5, TP6
   • Ajustment location :
   L941 ..... 144kHz
   TC942 ..... 290kHz
   Method : Set up TC942 to center before adjustment. The level at 144kHz is adjusted to MAX by L941. Then the level at 290kHz is adjusted to MAX by TC942.

7. FM VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to FM 87.5MHz, 108.0MHz and check that the test point is more than 1.5V (87.5MHz) and less than 8.2V(108.0MHz).

8. FM Tracking Check
   Settings : • Test point : TP5, TP6
   Method : • Set to FM 98.0MHz and check that the test point is 6dB ± 6dB.

9. DC Balance / Mono Distortion Adjustment
   Settings : • Test point : TP3, TP4 (DC balance)
   TP5, TP6 (Distortion)
   • Ajustment location : L741
   • Input level : 54dB
   Method : Set to FM 98.0MHz and adjust L741 so that the voltage between TP3 and TP4 becomes 0V ± 0.04V.
   Next, check that the distortion is less than 1.3%.

10. Auto Stop Level Adjustment
    Settings : • Test point : TP7
    • Adjustment location : SFR722
    • Input level : 16dB
    Method : Set to FM 98.0 MHz and adjust voltage low (about 0.01V) by SFR722. After that voltage high (about 7.0V) out by 2dB down.

< DECK SECTION >

11. Tape Speed Adjustment
    Settings : • Test tape : TTA–100
    • Test point : TP8, TP9
    • Adjustment location : SFR1
    Method : Play back the test tape by DECK 2 and adjust SFR1 so that the frequency counter reads 3000Hz ± 5Hz.

12. Head Azimuth Adjustment
    Settings : • Test tape : TTA–300
    • Test point : TP8, TP9
    • Adjustment location : Head azimuth adjustment screw
    Method : Play back the 10kHz signal of the test tape and adjust screw so that the output becomes maximum. Next, perform on each FWD PLAY and REV PLAY mode.

13. PB Frequency Response Check (DECK 1, DECK 2)
    Settings : • Test tape : TTA–300
    • Test point : TP8, TP9
    Method : Play back the 315Hz and 10kHz signals of the test tape and check that the output ratio of the 10kHz signal is with respect to that of the 315Hz signal is ± 2dB.

14. PB Sensitivity Adjustment
    Settings : • Test tape : TTA–200
    • Test point : TP8, TP9
    • Adjustment location :
    SFR301 (DECK 1, Lch)
    SFR302 (DECK 1, Rch)
    SFR303 (DECK 2, Lch)
    SFR304 (DECK 2, Rch)
    Method : Play back the test tape and adjust SFRs so that the output level of the test point becomes 300mV.

15. REC/PB Frequency Response Adjustment
    Settings : • Test tape : TTA–602
    • Test point : TP8, TP9
    • Input signal : 1kHz / 10kHz (LINE IN)
    • Adjutment location : SFR451 (Lch)
    SFR452 (Rch)
    Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP8, TP9 becomes 21mV. Record and play back the 1kHz and 10kHz signals and adjust SFRs so that the output of the 10kHz signals becomes 0dB ± 0.5dB with respect to that of the 1kHz signal.

16. REC/PB Sensitivity Adjustment
    Settings : • Test tape : TTA–602
    • Test point : TP8, TP9
    • Input signal : 1kHz (LINE IN)
    • Adjutment location : SFR305 (Lch)
    SFR306 (Rch)
    Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP8, TP9 becomes 21mV. Record and play back the 1kHz signals and adjust SFRs so that the output is 21mV ± 0.5dB.

17. Bias OSC Frequency Adjustment
    Settings : • Test tape : TTA–601
    • Test point : TP10 (R311)
    • Adjustment location : L451
    Method : Set to the REC mode. Adjust L451 so that the frequency counter of the test point reads 85kHz ± 0.1kHz.

PRACTICAL SERVICE FIGURE

<TUNER SECTION>

<FM SECTION>

IHF Sensitivity :	6dB ± 6dB
(THD 3%)	(87.5 / 98.0 / 108.0MHz)
S/N 50dB Quieting sensitivity :	
	31dB ± 5dB
	(87.5 / 98.0 / 108.0MHz)
Signal to noise ratio :	More than 64dB (98.0MHz)
Distortion :	Less than 1.2% (98.0MHz)
Stereo separation :	More than 22dB (98.0MHz)
Intermediate frequency :	10.7MHz

<MW SECTION>

Sensitivity :	48 ~ 62dB (603kHz)
(S/N 20 dB)	47 ~ 59dB (999kHz)
	47 ~ 59dB (1404kHz)
Distortion :	Less than 1.5% (999kHz)
Intermediate frequency :	450kHz

<LW SECTION>

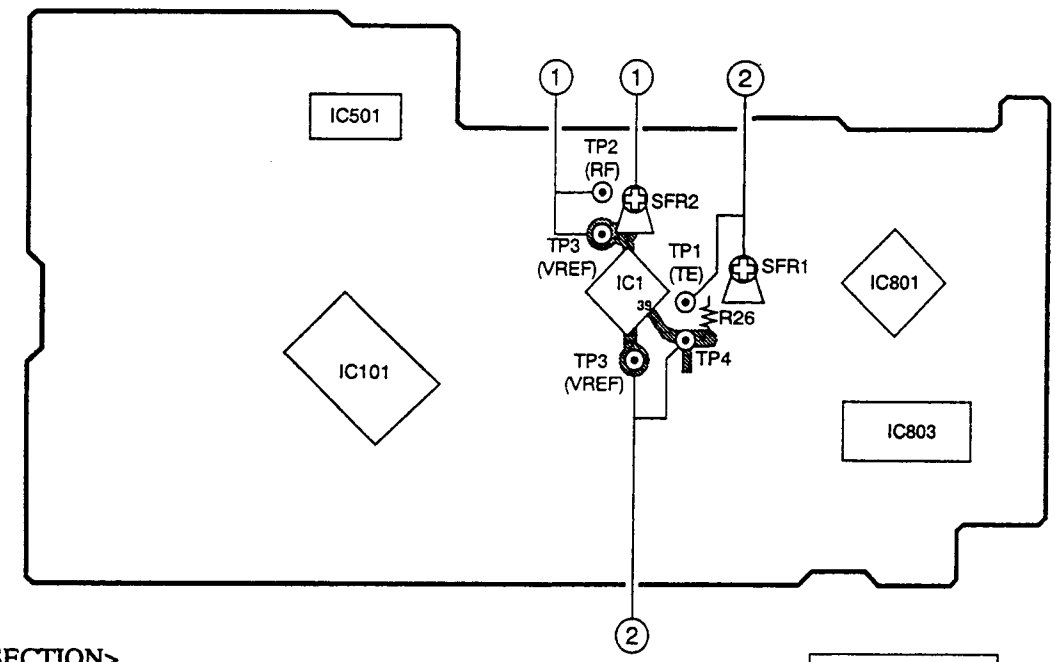
Sensitivity :	66dB ± 5dB (144kHz)
(S/N 20dB)	63dB ± 5dB (198kHz)
	62dB ± 5dB (290kHz)
Distortion :	Less than 1.5% (198kHz)
Intermediate frequency :	450kHz

<DECK SECTION>

Tape speed :	3000Hz ± 45Hz
Wow & flutter :	Less than 0.4% (R.M.S)
Take-up torque :	30 ~ 55g-cm (FWD, REV)
F.F & REW torque :	75 ~ 180g-cm
Back tension :	2 ~ 7g-cm (FWD, REV)
PB Output level :	2.8V ± 1.5dB (SP OUT 2V)
REC/PB Output level :	2.0V – 3.5dB ~ 2.0V + 0.5dB
	(SP OUT 2V)
Distortion (REC/PB) :	Less than 2.0% (NORM, CrO2)
Noise level (PB) :	Less than 100mV / 170mV
	(DOLBY NR ON / OFF
	CrO2 Vol MAX.)
	Less than 90mV / 200mV
	(DOLBY NR ON / OFF
	NORM. Vol MAX.)
Noise level (REC/PB) :	Less than 3.0mV / 7.0mV
	(DOLBY NR ON / OFF
	CrO2 SP OUT 2V)
	Less than 3.5mV / 8.0mV
	(DOLBY NR ON / OFF
	NORM. SP OUT 2V)
Crosstalk :	More than 60dB (1kHz, 0VU)
Channel separation :	More than 40dB (1kHz, 0VU)
Erasing ratio :	More than 60dB (at 125Hz)
REC bias frequency :	85kHz
Test tape :	NORMAL : TTA-602
	CrO2 : TTA-610

ADJUSTMENT – 2 <CD>

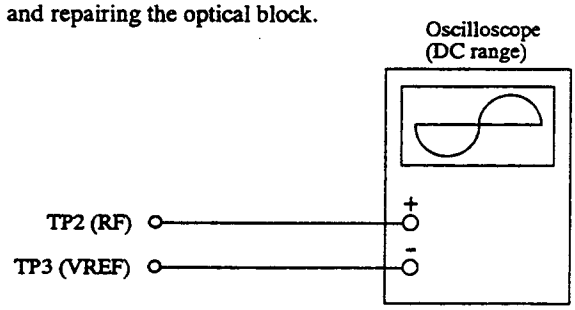
3CD C.B



<CD SECTION>

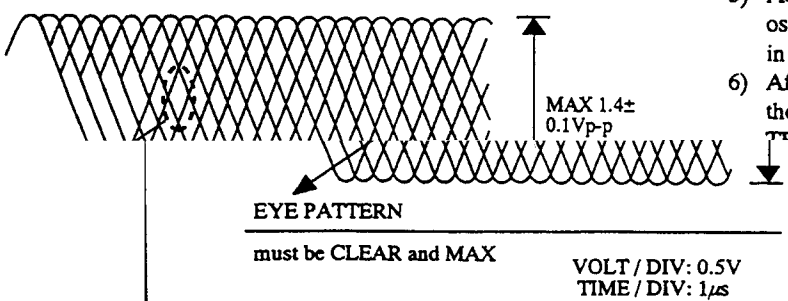
Note : Connect a probe (10:1) of the frequency counter or the oscilloscope to a test point.

1. Focus Bias Adjustment
   Make the focus bias adjustment when replacing and repairing the optical block.

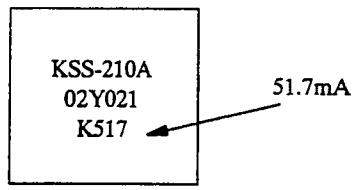


1) Connect an oscilloscope to the test points TP2 (RF) and TP3 (VREF).
2) Turn on the power switch.
3) Insert test disc TCD-782 (YEDS-18) and play back the second composition.
4) Adjust SFR2 so that RF signal of the test point TP2 (RF) is MAX and CLEARREST.

RF signal waveform

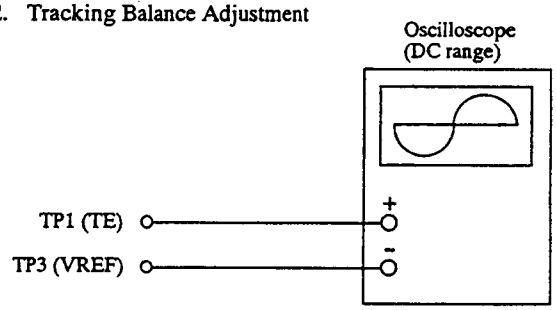


Note : The current of the laser signal can be checked with the voltages on both sides of R2 (10Ω). The difference for the specified value shown on the level must be within ± 6.0mA.

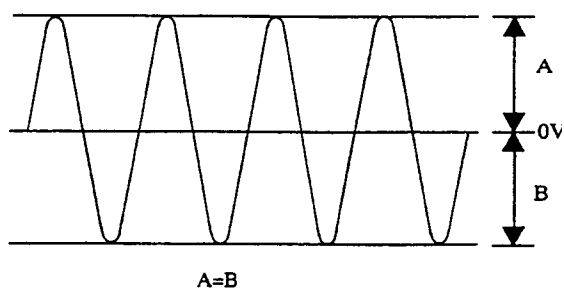


$$\text{Laser current Iop} = \frac{\text{Voltage across R2}}{10\Omega}$$

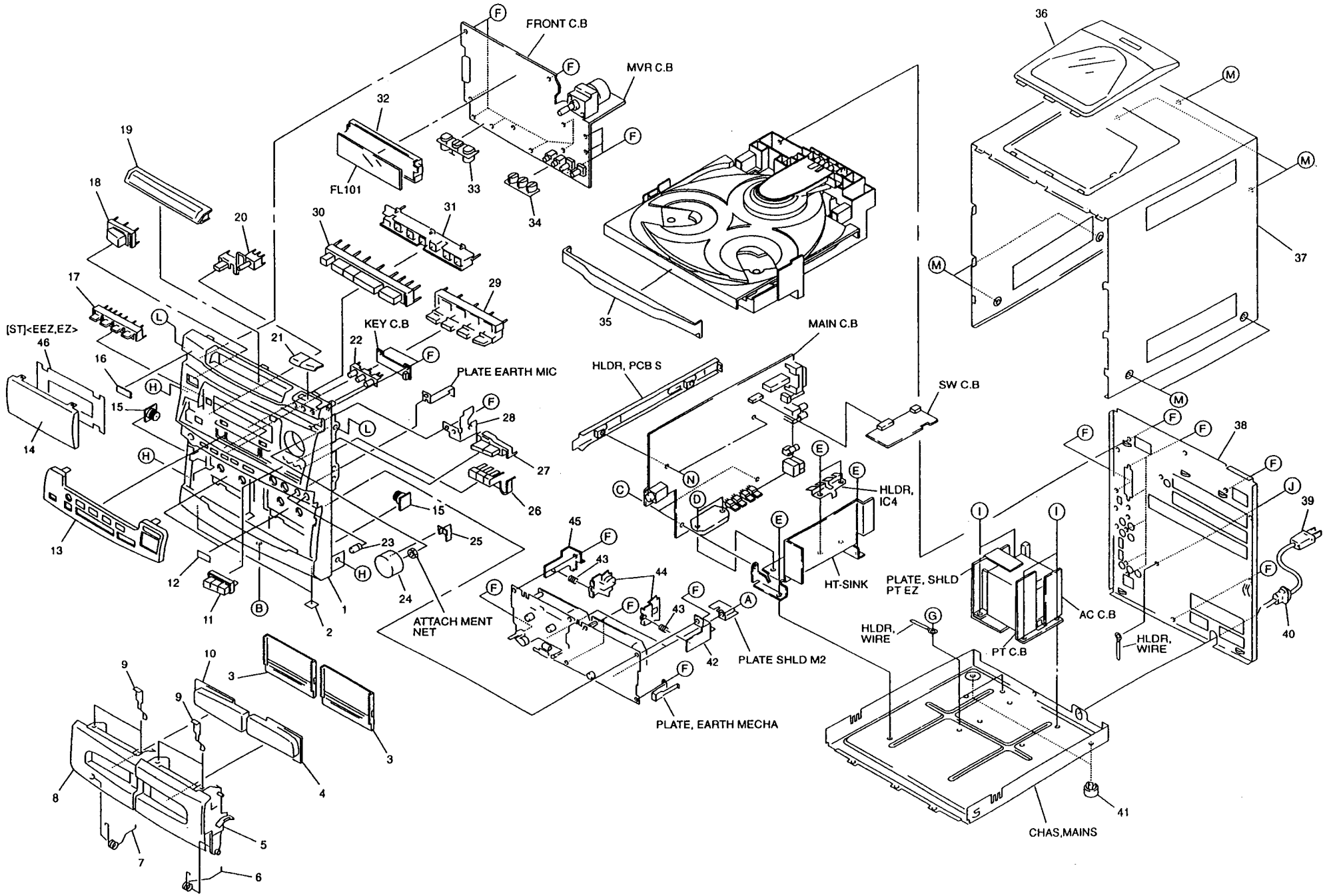
2. Tracking Balance Adjustment



1) Short circuit betweeb TP3 (VREF) and TP4.
2) Connect an oscilloscope to the test points TP1 (TE) and TP3 (VREF).
3) Turn on the power switch.
4) Insert test disc TCD-782 (YEDS-18) and press the PLAY button.
5) Adjust SFR1 so that the waveform on the oscilloscope is vertically symmetrical as shown in the figure below.
6) After the adjustment is completed, remove the connected lead wires from the test point TP3 (VREF) and TP4.



MECHANICAL EXPLODED VIEW 1 / 1

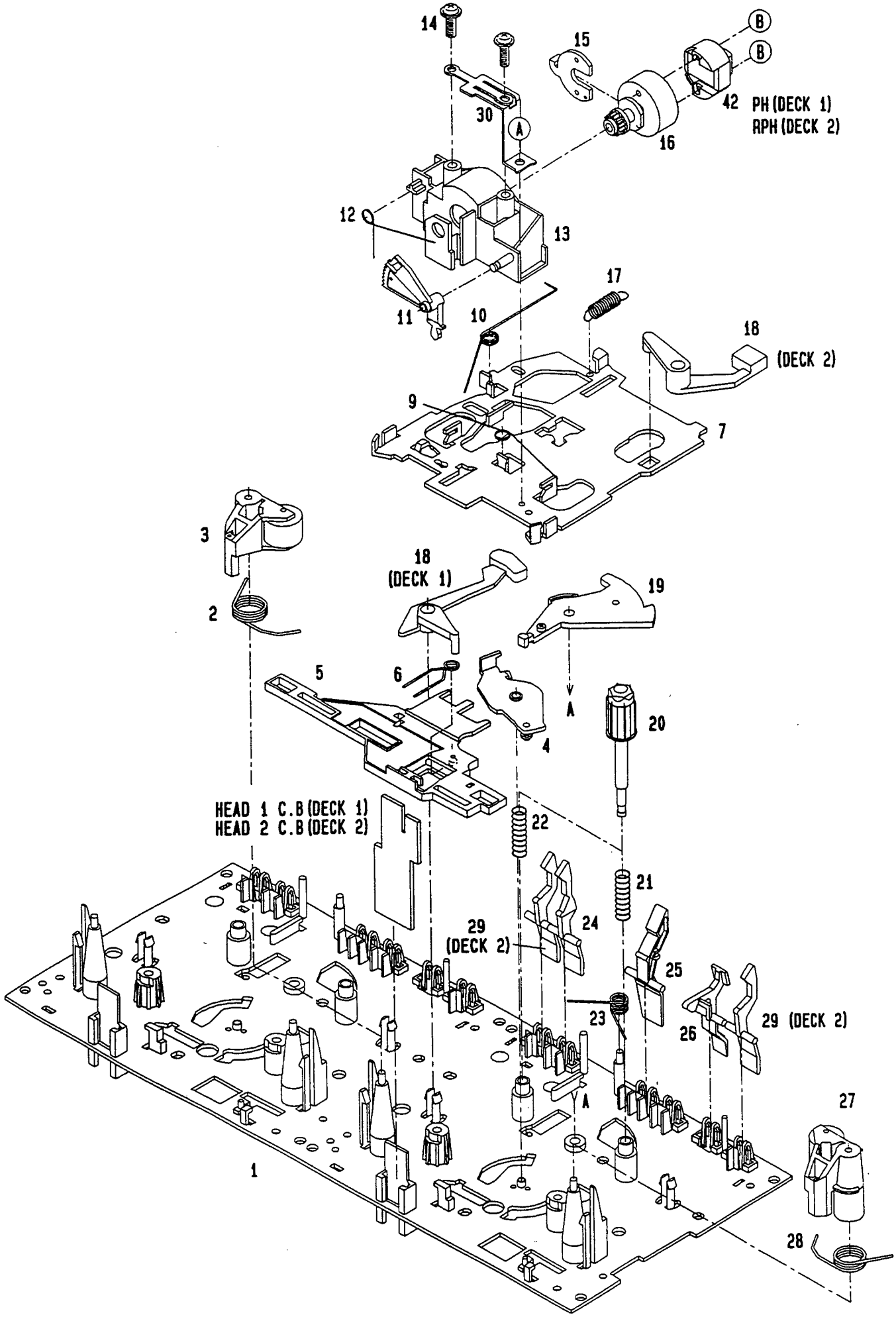


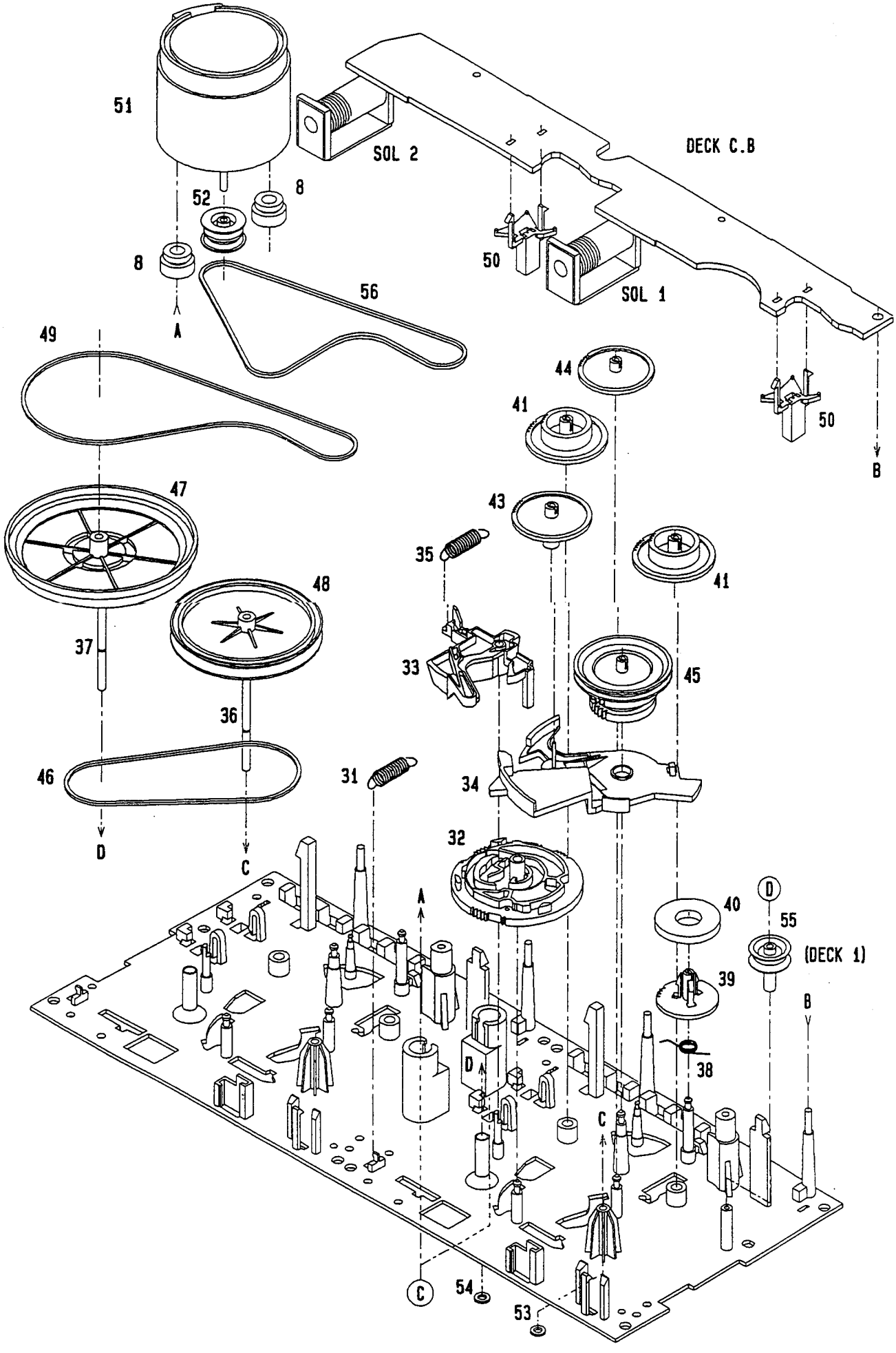
MECHANICAL PARTS LIST 1 / 1

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	85-NF5-042-010		CAB,FR EZ<EXCEPT [ST]EZ>
1	85-NF5-044-010		CAB,FR TI<[ST]EZ>
2	80-VT1-202-010		FELT,12.5-15.5-2
3	85-NF5-026-010		IND,CASS
4	85-NF5-034-010		WINDOW,BOX 2
5	85-NF5-062-010		BOX,CASS2 EZ<EXCEPT [ST]EZ>
5	85-NF5-066-010		BOX,CASS2 TI<[ST]EZ>
6	82-NF5-219-010		SPR-T,EJECT 2 (SIN)
7	82-NF5-218-010		SPR-T,EJECT 1 (SIN)
8	85-NF5-061-010		BOX,CASS1 EZ<EXCEPT [ST]EZ>
8	85-NF5-065-010		BOX,CASS1 TI<[ST]EZ>
9	80-CD3-218-110		SPR-P CASS
10	85-NF5-033-010		WINDOW,BOX 1
11	85-NF5-021-010		KEY,DSP
12	81-532-080-010		LBL,CASS-COMPT
13	85-NF5-006-110		PANEL,CONTROL
14	85-NF5-035-010		WINDOW,DISPLAY
15	87-063-165-010		OIL-DMPR 150
16	82-NE6-067-010		BADGE AIWA 30N
17	85-NF5-023-010		KEY,DOLBY<EXCEPT [ST]EZ>
17	85-NF5-088-010		KEY,DOLBY TI<[ST]EZ>
18	85-NF5-013-010		KEY,POWER<EXCEPT [ST]EZ>
18	85-NF5-087-010		KEY,POWER TI<[ST]EZ>
—19	85-NF5-032-010		WINDOW,CD —
20	85-NF5-027-010		KEY,DUBB
21	85-NF5-011-010		KEY,OPEN<EXCEPT [ST]EZ>
21	85-NF5-086-010		KEY,OPEN TI<[ST]EZ>
22	85-NF5-012-010		KEY,DISC
23	83-NF5-020-010		KNOB,MIC
24	83-NF5-009-010		KNOB,VOL<EXCEPT [ST]EZ>
24	83-NFF-088-010		KNOB,VOL TI<[ST]EZ>
25	83-NF5-010-010		IND,VOL
26	85-NF5-022-010		KEY,GEQ
27	85-NF5-020-010		KEY,BBE
28	83-NF5-208-010		HLDR,FFC G
29	85-NF5-014-110		KEY ASSY,FUN
30	85-NF5-019-010		KEY,OPE
31	85-NF5-202-010		GUIDE,OPE
32	83-NF5-202-010		GUIDE,FL
33	83-NF5-210-010		GUIDE,LED L
34	83-NF5-211-010		GUIDE,LED R
35	85-NF5-073-010		PANEL,TRAY TI<[ST]EZ>
35	85-NF5-072-010		PANEL,TRAY U<EXCEPT [ST]EZ>
36	85-NF5-031-110	—	WINDOW,TOP
37	85-NF5-007-010		CAB,STEEL<EXCEPT [ST]EZ>
37	85-NF5-009-010		CAB,STEEL TI<[ST]EZ>
38	85-NF5-055-010		PANEL,REAR EEBNE<[B]EE>
38	85-NF5-056-010		PANEL,REAR EZBNE<EXCEPT[B]K,[B]EE>
38	85-NF5-057-010		PANEL,REAR KBNE<[B]K>
⚠ 39	87-050-016-010		AC CORD ASSY,E<EXCEPT [B]K>
⚠ 39	87-050-029-010		AC CORD ASSY,K 3P<[B]K>
40	87-085-185-010		BUSHING,AC CORD E
41	87-085-221-010		FOOT,H 13.5
42	82-NF5-226-010		HLDR,LOCK 1N
43	82-NF5-228-010		SPR-C,LOCK
44	82-NF5-229-010		PLATE,LOCK
45	82-NF5-227-010		HLDR,LOCK 2N
46	85-NF5-029-010		SH,TI<[ST]EZ>
A	87-571-032-410		VIT+2-3
B	87-067-689-010		BVTT+3-8
C	87-067-633-010		BVT2+3-8 W/CONVEX
D	87-067-698-010		BVT 2+3-18 (W/O SLOT)
E	87-067-579-010		BVT 2+3-8 W/O SLOT
F	87-067-703-010		BVT2+3-10 (W/O SLOT)
G	87-571-092-410		VIT+3-4
H	87-591-094-410		QIT + 3 - 6 GOLD
I	87-078-083-010		BUTT SEMS+4-8SW
J	87-084-077-010		NYLON RIVET DIA 3.5 - 4.5
L	87-721-097-410		QT2+3-12 GLD
M	87-067-641-010		UTT2+3-8 W/O SLOT BLK
N	87-078-084-010		BVTT+3-6 W,CONVEX

TAPE MECHANISM EXPLODED VIEW 1 / 1



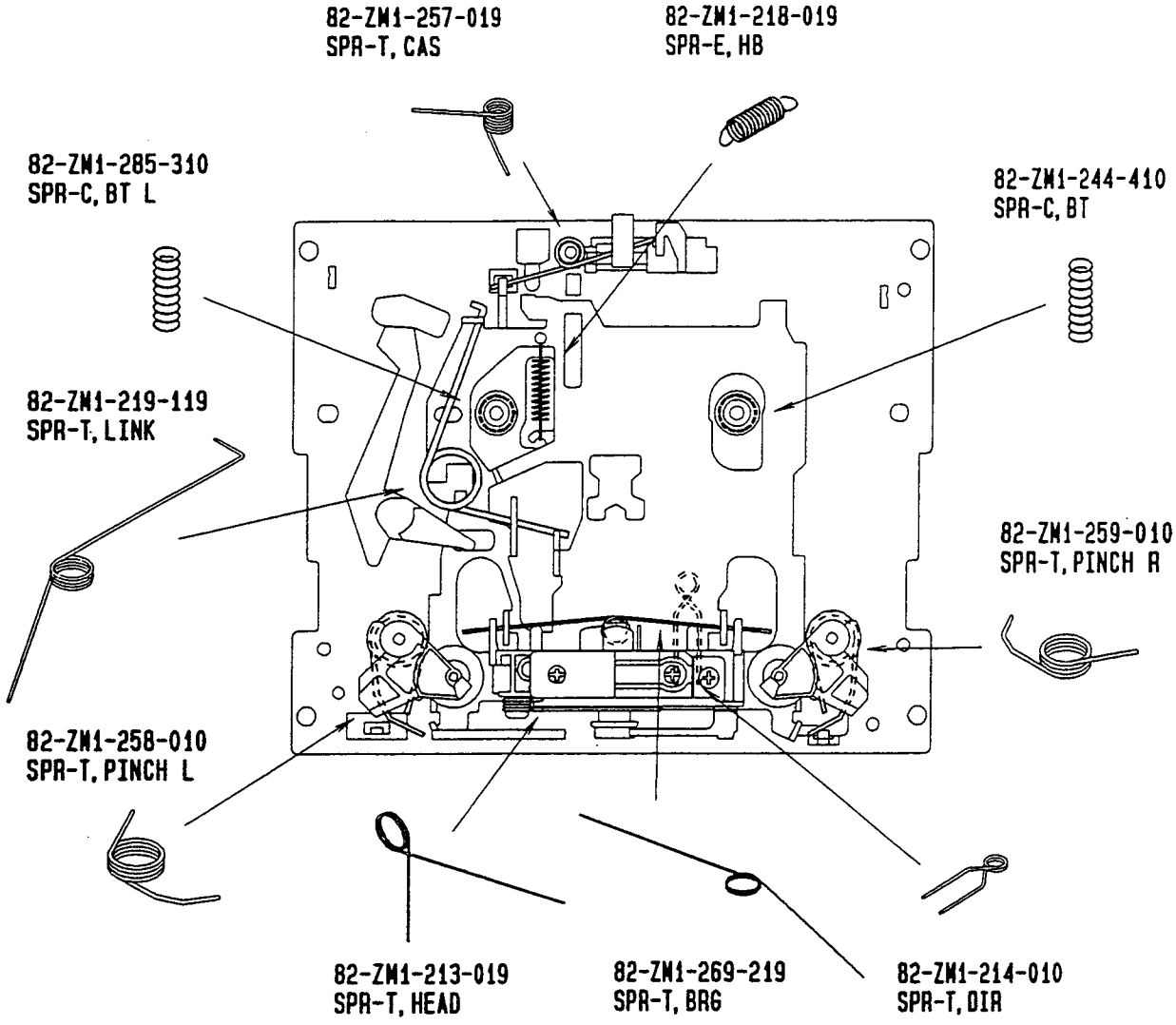

51
SOL 2
DECK C.B
52
8
8
50
SOL 1
56
A
49
44
41
50
B
47
43
35
41
48
37
33
45
36
46
31
34
D
C
32
A
40
D
55
(DECK 1)
39
B
38
D
C
C
54
53

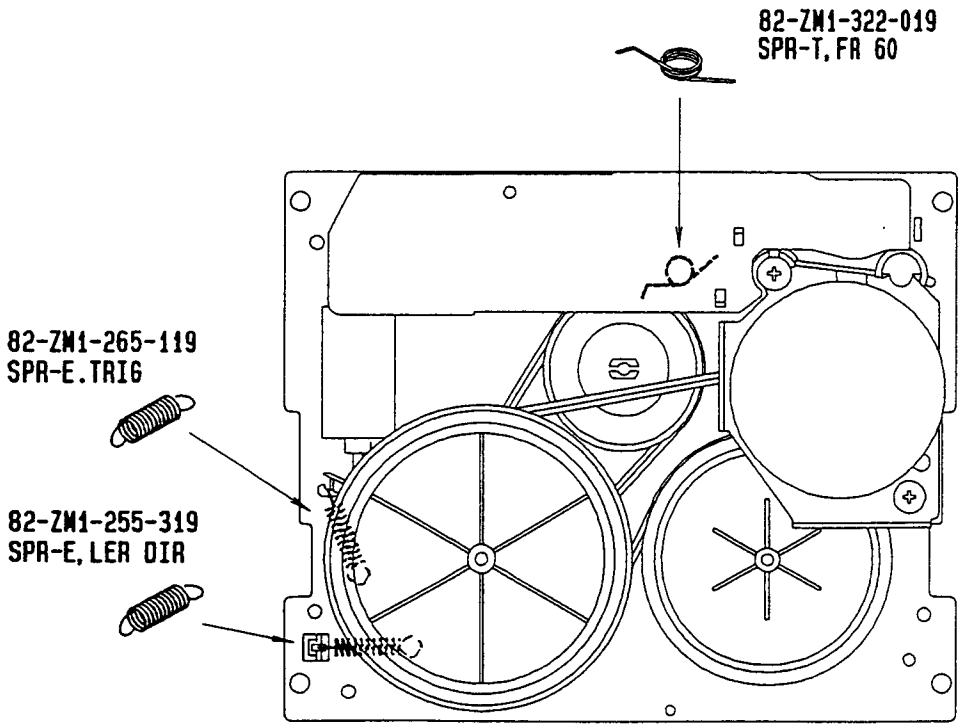
TAPE MECHANISM PARTS LIST 1 / 1

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

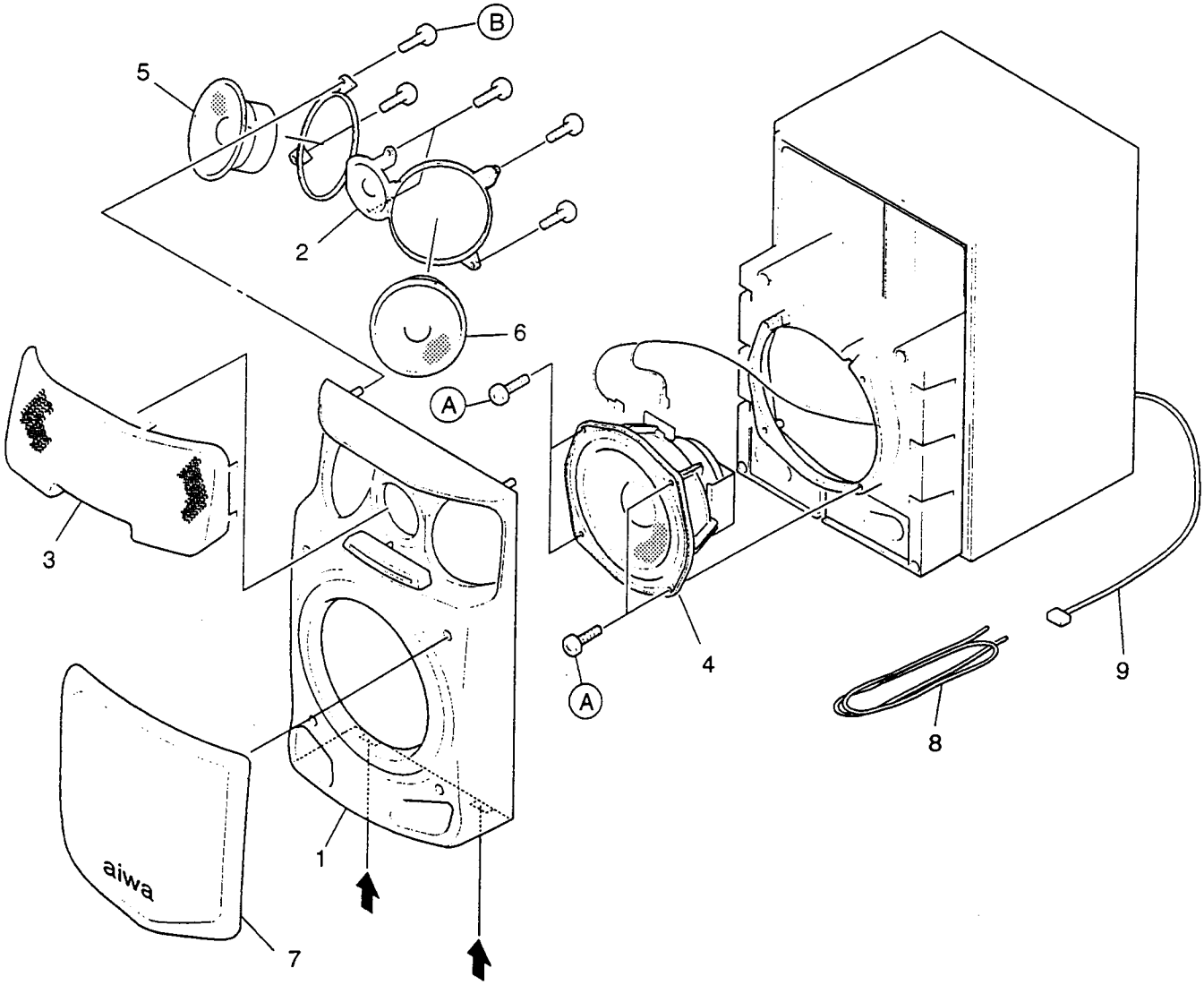
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	82-ZM3-301-019		CHAS ASSY,M2
2	82-ZM1-258-010		SPR-T,PINCH L
3	82-ZM1-248-419		LVR ASSY,PINCH L
4	82-ZM1-295-31K		PLATE ASSY,LINK
5	82-ZM1-266-11K		LVR,DIR
6	82-ZM1-214-010		SPR-T,DIR
7	82-ZM1-206-61K		CHAS,HEAD
8	82-ZM3-307-019		CUSH-G,DIA3.7-8-3.2
9	82-ZM1-269-219		SPR-T,BRG
10	82-ZM1-219-119		SPR-T,LINK
11	82-ZM1-210-019		GEAR,H T
12	82-ZM1-213-019		SPR-T,HEAD
13	82-ZM1-207-519		GUIDE,TAPE
14	82-ZM1-283-310		S-SCREW,AZIMUTH
15	82-ZM1-314-119		PLATE HEAD
16	82-ZM1-208-019		HLDR,HEAD
17	82-ZM1-218-019		SPR-E,HB
18	82-ZM1-263-110		LVR,EJECT L (DECK 1)
18	82-ZM1-264-010		LVR,EJECT R (DECK 2)
19	82-ZM1-222-11K		LVR,PLAY
20	82-ZM1-217-319		REEL TABLE
21	82-ZM1-244-410		SPR-C,BT
22	82-ZM1-285-310		SPR-C,BT L
23	82-ZM1-257-019		SPR-T,CAS
24	82-ZM1-241-319		LVR,MC
25	82-ZM1-242-019		LVR,CAS
26	82-ZM1-243-019		LVR,STOP
27	82-ZM1-253-419		LVR ASSY,PINCH R
28	82-ZM1-259-010		SPR-T,PINCH R
29	82-ZM1-240-11K		LVR,REC (DECK 2)
30	82-ZM1-298-010		SPR-P,EARTH
31	82-ZM1-255-319		SPR-E,LVR DIR
32	82-ZM3-305-01K		GEAR,CAM M2
33	82-ZM1-227-21K		LVR,TRIG
34	82-ZM3-306-01K		LVR,FR M2
35	82-ZM1-265-119		SPR-E,TR1G
36	82-ZM1-313-019		CAPSTAN N 2-41.5
37	82-ZM1-312-019		CAPSTAN N 2.2-41.7
38	82-ZM1-322-019		SPR-T,FR60
39	82-ZM1-220-219		GEAR,IDLER
40	82-ZM1-316-010		RING MAGNET 3
41	82-ZM1-216-21K		GEAR,REEL
42	87-046-355-019		HEAD,PH HADKH2529B(PH)
42	87-046-356-019		HEAD,RPH HADKH5581B(RPH)
43	82-ZM1-225-11K		GEAR,FR
44	82-ZM1-226-019		GEAR,REW
45	82-ZM1-228-510		SLIP DISK ASSY
46	82-ZM1-328-010		BELT FR2
47	82-ZM1-238-61K		FLY-WHL ASSY,R (DECK 2)
47	82-ZM3-210-51K		FLY-WHL ASSY,R2 (DECK 1)
48	82-ZM1-235-31K		FLY-WHL ASSY,L (DECK 2)
48	82-ZM3-208-41K		FLY-WHL ASSY,L2 (DECK 1)
49	82-ZM3-313-019		BELT R10
50	82-ZM1-245-210		HLDR,IC
51	87-045-347-019		MOT,SHU2L 70(M1)
52	82-ZM3-202-019		PULLEY,MOT 2M
53	82-ZM1-288-019		SH,1.63-3.2-0.5 SLT
54	80-ZM6-243-019		SH,1.75-3.6-0.5 SLT
55	82-ZM3-204-010		PULLEY,COUPLER (DECK 1)
56	82-ZM3-312-019		BELT P10
A	82-ZM1-315-010		S-SCREW,GVIDE TAPE
B	80-ZM6-207-019		V+1.6-7
C	82-ZM3-318-019		S-SCRW MOTOR M2
D	87-067-972-019		PW,1.05-3-0.25 SLT

SPRING APPLICATION POSITION





SPEAKER EXPLODED VIEW 1 / 1



矢印の位置にマイナスドライバーを差し込んで、パネルをはずして、各々のスピーカー・ユニットのビスを取り、スピーカー・ユニットをはずしてください。

Insert a flat - bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.

SPEAKER PARTS LIST 1 / 1

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	85-NS5-023-010		PANEL FR,ST<[ST]Y>
1	85-NS5-001-010		PANEL FR<EXCEPT [ST]Y>
2	85-NS5-011-010		ADAPTOR ASSY
3	85-NS5-012-010		SPEAKER GRILL
4	85-NS5-602-010		SPEAKER WOOFER<EXCEPT [B]YL>
4	85-NS5-604-010		SPEAKER WOOFER<[B]YL>
5	83-NS5-608-010		SPEAKER MID H
6	83-NS5-610-010		SPEAKER H
7	85-NS5-020-010		GRILL FRAME ASSY
8	85-NS5-614-010		CORD 4P
9	83-NS5-613-010		SPEAKER CORD ASSY
A	87-343-172-010		UT1+4-12
B	87-342-097-010		UT1+3-10

ACCESSORIES / PACKAGE LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	85-NF5-905-010		IB,EGI-G<EXCEPT KBNE>
1	85-NF5-904-010		IB,ESF(E)-G
2	87-006-225-010		AM LOOP ANT NC2
3	87-043-106-010		FM,WIRE ANT (Z)
4	85-NF5-631-010		RC-T501

REFERENCE NAME LIST

ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP, CHIP
C-CAP TN	CAP, CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES, CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP, CERA-SOL
CAP, E	CAP, ELECT
CAP, M/F	CAP, FILM
CAP, TC	CAP, CERA-SOL
CAP, TC-U	CAP, CERA-SOL SS
CAP, TN	CAP, TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP, ELECT
FILT	FILTER
FLTR	FILTER
FUSE RES	RES, FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP, PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES, NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC CAP	CAP, CERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
TRIMER	CAP, TRIMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER

MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESHIVE	SHEET ADHESHIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BATT	BATTERY
BRG	BEARING
BTN	BUTTON
CAB	CABINET
CASS	CASSETTE
CHAS	CHASSIS
CLR	COLLAR
CONT	CONTROL
CRSR	CURSOR
CU	CUSHION
CUSH	CUSHION
DIR	DIRECTION
DUBB	DUBBING
FL	FRONT LOADING
FLY-WHL	FLYWHEEL
FR	FRONT
FUN	FUNCTION
G-CU	G-CUSHION
HDL	HANDOL
HIMERON	CLOTH
HINGE, BAT	HINGE, BATTERY
HLDR	HOLDER
HT-SINK	HEAT SINK
IB	INSTRUCTION BOOKLET
IDLE	IDLER
IND, L-R	INDICATOR, L-R
KEY, CONT	KEY, CONTROL
KEY, PRGM	KEY, PROGRAM
KNOB, SL	KNOB, SLIDE
LBL	LABEL
LID, BATT	LID, BATTERY
LID, CASS	LID, CASSETTE
LVR	LEVER
P-SP	P-SPRING
PANEL, CONT	PANEL, CONTROL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MO	PULLY, LOAD MOTOR
RBN	RIBBON
S-	SPECIAL
SEG	SEGMENT
SH	SHEET
SHLD-SH	SHIELD-SHEET
SL	SLIDE
SP	SPRING
SP-SCREW	SPECIAL-SCREW
SPACER, BAT	SPACER, BATTERY
SPR	SPRING
SPR-P	P-SPRING
SPR-PC-PUSH	P-SPRING, C-PUSH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL

サービス技術ニュース	
番号	連絡内容
G－　－	
G－　－	
G－　－	

アイワ株式会社
AIWA CO.,LTD.

〒110 東京都台東区池之端1－2－11　☎03 (3827) 3111 (代表)

9420025, 750038

Tokyo Japan

Printed in Singapore